

choice



The fish dilemma

Does your favourite fish contain toxins or wreak environmental havoc?



Laptop buying guide

Find out what makes a laptop the right one for your computing needs.

On test

- + Fridges
- + Health grills
- + Digital SLR cameras
- + Lawnmowers
- + Evaporative air coolers
- + Car GPS

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Dark chocolate

Can it be ethical,
good for you
and downright
delicious?

Refinancing
your home loan
– how to save
thousands

Are carbon offset
schemes just a
lot of hot air?

Regular and recycled
toilet paper on trial



163 PRODUCTS
RATED!

Driving forces: new GPS systems that detect the worst traffic to navigate the best route

Contents

News



04 Consumer news

- + Time for a plastic bag levy
- + Smartphones and download debt
- + Online DNA tests
- + Branded litter
- + Ethical investing
- + GM food to hit our shelves
- + Early payment attracts late fee.

08 Product news

- + We put TiVo to the test
- + Garden-size chainsaw
- + Tefal ActiFry.

Features



12 Dark chocolate

Can it be healthy, ethical and delicious all at the same time?

17 Refinancing your mortgage

22 The great fish dilemma

26 Laptop buying guide

30 Comparing carbon offsets

35 Toilet paper unravelled

Information



10 Emails and letters

How one reader beat the bank; Quick Cup Kettle; product sustainability plea; is that warranty watertight?

64 Recalls and bans

65 Campaigns

- + Junk food advertising
- + Who should rule on false "greenwash" claims?

67 Index

68 Hard Word



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Email ausconsumer@choice.com.au

How CHOICE helps you. CHOICE gives you the power to choose the very best goods and services, and avoid the worst. Because we pay full price for the products we test, we can remain 100% independent. We don't take advertising and we don't accept freebies from industry – our only aim is to give consumers the best possible information about buying products and services. Our income is only from subscriptions to our magazines and choice.com.au, and from other services we supply for the benefit of consumers. We're not a government body and we don't receive government funding.

We have laboratories in Marrickville, Sydney, that test everything from juicers to plasma TVs, coffee grinders to MP3 players and air conditioners. We test hundreds of products every year. There's no hidden agenda to our testing – we simply road-test products so that consumers like you don't get ripped off. CHOICE ratings are based on lab tests, expert assessments and consumer surveys.

CHOICE also has staff who research a wide range of consumer services – everything from the financial industry to the organic food business, supermarket practices to drug companies and pharmacies. They reveal the truth behind the facts and figures, and investigate the quality and the claims.

CHOICE has also always campaigned about consumer goods and services that affect your life. We lobby government and regulators on behalf of all consumers in Australia. CHOICE was established in 1959 and is a not-for-profit, non-party-political organisation.



CHOICE Best Buy CHOICE calls a product a Best Buy if it delivers high quality at a comparatively low price. Not every test report has Best Buys.



CHOICE Green Buy CHOICE calls a product a Green Buy if it delivers both good quality and environmental performance at a comparatively low price. Not every test report has Green Buys.



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Call 1300 360 655. All you need is the model name and number of the product you want to buy, the price you want to beat, and your CHOICE subscriber number. CHOICE Shopper is available to personal subscribers only.



On test

- 38 + Refrigerators** Three of the 12 new models on test have French doors but not all made it into our *What to buy* list.
- 44 + Health grills** They claim to be a healthier way to cook meat, vegetables, fish and even toasted sandwiches, but are they worth the money?
- 47 + DSLR cameras** In our first test of digital SLR cameras we explain why you might be tempted by some of these models.
- 52 + Lawnmowers** Our testers put petrol and push mowers through their paces.
- 60 + Car GPS** We tested them in the city and the country so you can choose the one that best suits your usual driving conditions.



CHOICEextra.com.au

This is a free website for CHOICE magazine subscribers. It's an index of articles going back to Jan/Feb 2002, with links to PDFs so that you can read many of them immediately. You log in with your subscriber number, which is above your name on the mailing label that comes with the magazine.

Comment

Offsetting with integrity



Going green just got easier. In this issue of CHOICE we are very pleased to introduce you to Australia's first independent ranking of voluntary carbon offset providers. Whether it's air travel, energy bills or paying your car insurance, chances are you're going to be offered

an offset product some time soon. When you make the decision to offset your carbon emissions, Carbon Offset Watch can help you confidently make the best choice.

Carbon Offset Watch is a joint initiative between CHOICE, the Institute for Sustainable Futures and the Total Environment Centre, and brings some desperately needed transparency to carbon offset schemes (go to www.carbonoffsetwatch.org.au).

The great news is that in the first-ever survey of carbon offset retailers we were able to give five retailers the highest rating of "outstanding". The bad news is that the market is still awash with products that are not accredited or certified by an independent scheme.

We were surprised to find that your purchases of carbon offsets are currently included in Australia's Kyoto Protocol targets. So when you buy these offsets voluntarily, you're paying for emission reductions that would have happened anyway.

We think consumers' voluntary offsets should be additional to Australia's legal obligations to reduce carbon emissions. We're lobbying the government to count voluntary carbon offsets separately from other emission reductions, so that every dollar you spend makes the biggest possible positive impact on the environment.

You can get in and have your say about carbon offsets and Carbon Offset Watch, by posting a comment to the online version of the CHOICE report. It's now listed on CHOICE Green, a new entry point for reports and tests on all things sustainable. Go to www.choice.com.au/choicegreen. ■

Anny Friis
Editorial Director

Businesses who have signed up to the National Packaging Covenant need to address the litter that comes from packaging.

+ ENVIRONMENT

Coca-Cola and McDonald's litter found most often

We all know junk food is bad for your health, now a new study proves it's bad for the environment too.

Branded litter, such as packaging from McDonald's, Coca-Cola, Cadbury and other retailers, accounts for 24% of the overall waste stream, with highways a major dumping ground, according to an Australia-wide study by Keep Australia Beautiful. The study, released in late September, also reveals that the two biggest culprits are Coca-Cola and McDonald's, which contribute close to 10% each of the branded litter.

Of the 12,544 branded litter objects analysed, 1226 brands were found across all national sites surveyed during November 2007 and May 2008. Non-alcoholic beverage containers and packaging represented the largest proportion of the branded objects identified nationally (21.4%). Other categories making large contributions were alcoholic beverage containers

and packaging (19.5%), snacks wrappers and packets (17%), and take-away food and drink containers and packaging (15.3%).

Don Chambers, Chairman of Keep Australia Beautiful, says the research has identified which brands and customers they need to focus on. "As a nation the challenge is for community, industry and government to work together to reduce waste and litter," he said. The results of this survey can also help address issues of packaging litter via the National Packaging Covenant, which requires businesses who have signed up to address these issues and contribute to improved consumer decision making in the future.

Keep Australia Beautiful is Australia's leading litter prevention community group, known for its Tidy Towns, Sustainable Communities and Clean Beaches Awards and for Keep Australia Beautiful Week each spring. ■



+ INVESTMENTS

Uranium and ethical investing

There's a 'crisis of definition' for ethical and sustainable funds.

Many so-called ethical funds are not necessarily ethical in the area of uranium mining, according to a report by the not-for-profit group, Corporate Watch Australia.

"Of the 18 ethical investment funds studied, just four have policies that absolutely screen out investment in uranium and nuclear power, five have no policy, seven have policies that allow for some level of investment and one is proudly pro-nuclear," Corporate Watch says. The companies offering funds that screen out uranium are Australian Ethical, CVC Sustainable Investments, Hunter Hall Investment Management and Perpetual Investments.

The report was commissioned by environmental group Friends of the Earth, which has been campaigning against uranium mining and nuclear power for 35 years. "We consider investment in the nuclear power chain to be unethical because of the industry's disproportionate, adverse impacts on indigenous people; the repeatedly demonstrated connection between the 'peaceful' nuclear chain and nuclear weapons; the legacy of high-level nuclear waste; and the existence of a plethora of more benign energy production and energy-saving methods to reduce greenhouse emissions," Friends of the Earth says.

Corporate Watch's findings are consistent with CHOICE's September 2007 article, which found that despite uranium's

controversies most "ethical" and "sustainable" funds invest in uranium mining companies such

as BHP and Rio Tinto. Funds justify this on the basis that the uranium is used for nuclear energy, not weapons, that the companies get less than 5% or 10% of their overall revenue from uranium, or that they have good environmental, social or corporate governance performance. Sustainable or ethical funds that invest in uranium often also allow investments in tobacco and gambling industries.

Interpretations of what's sustainable or ethical differ; the catch-all term "responsible" is now favoured by the industry's representative body. The industry seems to view the negative screening approach, where problem industries are excluded from funds, as outdated and less relevant than the more mainstream "responsible" and "sustainability" investing, which researches and invests in companies that perform well on environmental, social, ethical and corporate governance measures.

Corporate Watch calls this a crisis of definition. It quotes the company Australian Ethical as saying: "A lot of companies claiming to invest 'sustainably' are actually talking about financial rather than social or ecological sustainability." ■



+ GENETICALLY MODIFIED FOOD

Sign up to have your say on GM

The moratorium on growing GM canola crops has lapsed in NSW and Victoria, and loopholes in labelling regulations mean you may soon be eating foods containing GM ingredients without knowing it.

The genetically modified food debate has been raging for years, but in the past 12 months the NSW and Victorian governments have allowed a moratorium on the growing of commercial GM canola crops to lapse. As a result, the first GM canola crops to be commercially grown in Australia will soon be harvested. That means you'll probably soon be eating it, whether you like it or not. Despite election promises made by the current federal government to not allow GM foods until they were proven safe, and to label such foods if they were found to be safe, there have been no changes, and products containing Australian-grown GM canola could soon hit the shelves.

Under existing labelling laws, highly refined products such as sugar and oil are exempt from being labelled as genetically modified, because a highly refined ingredient doesn't have any detectable GM protein. This loophole means that products containing GM canola oil wouldn't need to be labelled as GM.

Research has consistently shown that consumers overwhelmingly want GM ingredients labelled, but they continue to be ignored in favour of the multinational companies behind genetic engineering. Greenpeace estimates GM canola makes up less than 1% of crops in NSW and Victoria, but the group is concerned about the risk of cross-pollination with conventional canola crops, as has happened overseas. Many farmers are also concerned.

The previous WA government bucked the trend by strongly supporting better labelling of GM foods, but the new state government is considering lifting the moratorium for non-food GM crops.

Almost 150 chefs, including Kylie Kwong, Bill Granger and Neil Perry, have signed the "GE Free Chefs Charter", a national petition coordinated by Greenpeace, which calls for comprehensive labelling of GE products and a reinstatement of the NSW and Victorian moratorium. As well, Woolworths has a policy of avoiding GM ingredients in its home-brand products where possible.

You can have your say in demanding the labelling of GM ingredients by joining Greenpeace's "GM Food – Our Right to Know" campaign. Go to www.truefood.org.au and sign the petition, which will be presented to the federal health minister. It demands that GM crops only be approved if they are proven to be safe, and that all GM foods are clearly labelled, including highly processed products such as oils, starches and sugars. It also wants meat, milk, cheese and eggs from animals given GM feed labelled. Alternatively, write a letter to your local member, both federal and state, stating that it's your right as a consumer to know what you're putting in your mouth. ■

CAN YOU HELP?

HRT? Black cohosh? Yoga? Soy? Yam cream? We'd love to know what you've taken to relieve any troublesome symptoms of menopause. Check out our online poll at choice.com.au/HRT – follow the link from Get Involved.

+ BANK FEES

When early means late

Paying your credit card early may not protect you from late payment fees.

The main source of income for Judee and Graeme, from Melbourne (pictured), is a Disability Support Pension paid fortnightly. To make



sure everything was in order with their Westpac credit card, they set up a regular transfer of \$70 every fortnight when their pension is paid.

Their minimum required payment is about \$110, which should be comfortably covered by the \$70 payment twice per month. However, earlier this year they were charged a \$35 late-payment fee. Their bank had used three \$70 payments to pay off the bill in one month, meaning they paid only \$70 the next month, which didn't cover the minimum payment.

CHOICE took up their case with Westpac, which explained that it is standard practice that you only have the time between your statement date and the due date to make the minimum payment. Any payments made before the statement date aren't credited against future minimum payments.

CHOICE VERDICT

CHOICE thinks this is a trap, especially for people on fixed incomes, with tight budgets or in difficult financial circumstances. While Westpac reversed the charge for Judee and Graeme, we think this practice should be abolished. It would be fairer if banks could keep track of all payments made between due dates and credit them towards the next minimum payment.

WHAT YOU CAN DO

- If your budget allows it and you can arrange it that there'll always be enough funds in your account, set up a direct debit from your bank account to be paid into your credit card account by the due date. You can usually choose between paying the minimum payment, a fixed amount such as \$200 or the full bill.
- If you think you've been unfairly charged, challenge it – go to www.choice.com.au/fairfees. ■



CHOICE believes consumers are ready for a levy on plastic shopping bags.

IMAGE: ISTOCKPHOTO

ENVIRONMENT

Call to action to reduce plastic bag use

There's still no national action plan, but some states have taken steps to reduce plastic bag use. CHOICE says it's time for a levy on checkout bags.

Plastic bags have long been an environmental menace, wasting resources and killing marine life and birds. Although we've reduced our reliance on them recently, we still use four billion each year.

At the beginning of this year CHOICE was pleased to report that the federal government was planning the introduction of a levy on plastic bags or to ban them outright within 12 months. Unfortunately, very little has happened on the federal front since then, but a few states have taken some steps in the right direction.

In June, the SA government introduced legislation to ban single-use, lightweight polyethylene bags (checkout bags with handles) from 1 January 2009, with the ban coming into full effect on 4 May 2009.

In Victoria, the Australian National Retailers Association, with the support of the Victorian government, conducted a trial to assess consumer response to a charge on plastic bags. For four weeks in August and September, shoppers at selected Coles, Safeway and IGA supermarkets in Wangaratta, Warrnambool and Narre Warren were charged 10 cents for each plastic checkout bag. Retailers participating in the trial agreed to donate all proceeds from the trial to local environmental projects.

"Plastic checkout bags are a short-term convenience with long-term environmental impacts, and the charge,

will prompt shoppers to ask themselves if they really need a bag," said Victoria's Environment and Climate Change Minister, Gavin Jennings.

While we are still awaiting the results of the trial, Mr Jennings said the response from customers and retailers had been very positive. The results will be considered at this month's meeting of federal and state environment ministers. We hope they will finally honour their promise made earlier this year and implement a national strategy to reduce the use of plastic bags.

CHOICE believes consumers are ready for action on this front. In an online survey we conducted earlier this year well over half of the 2000 respondents were open to the idea of retailers charging for plastic bags, agreeing that this would send a message to consumers that they shouldn't be using them.

We support the introduction of a well thought out levy on plastic bags, one that rewards consumers who are already using environmentally friendly alternatives and ensures litter is reduced and bags are collected and recycled.

To reduce the number of plastic bags you use, get into the habit of taking some reusable bags with you when shopping and keep a few bags or cardboard boxes in the boot of your car. ■

TECHNOLOGY

Smartphones attract download debt

New 3G mobiles bring faster web browsing speeds – along with high excess usage fees.

New generations of smartphones such as Apple iPhones can lead consumers to download a higher volume of data without realising they're exceeding their phone plan value. The Australian Competition & Consumer Commission has warned that faster web browsing speeds on these phones mean that online content, including multimedia files, can be viewed and downloaded from mobiles rapidly – causing you to be sluggish with high excess fees if you don't monitor your usage carefully.

To make matters worse, some mobile carriers offer customers unlimited data downloads in the first month of their plans – allowing you to become familiar with the full functionality of the device – before facing a significantly lower data limit in the following months.

The ACCC has written to major mobile phone carriers, noting its

concerns about the potential for consumers to be misled about data usage charges. "Consumers must think twice before signing contracts with a mobile phone carrier without upfront disclosure of all the fees and charges, including excess data charges," ACCC Chairman Graeme Samuel said. "Not all carriers offer high-volume data plans, so we encourage consumers to compare the offers of each carrier, taking particular note of the excess data usage fees."

It's estimated that those who use their phones daily for light browsing would require a plan that offers at least 250MB to 500MB of data limit per month. Some carriers offer up to 3GB of usage a month (at a fairly high price), but experts recommend that intensive web browsing is best done on your PC if you're keen to avoid expensive excess fees. ■



+ ONLINE DNA TESTING

Gene genie or buyer beware?

Once the realm of forensic science, medicine and paternity suits, have DNA tests become the latest consumer must-have?

Want to know your ancestry? Could you pursue a career in sport? Should you start saving for the newborn's private school education or are they smart enough to win a scholarship? A DNA analysis claims to reveal all.

These days, you don't even have to go through your doctor, as there is a plethora of online-based companies. So-called direct-to-consumer DNA tests are usually used for paternity tests on either an official basis, for family law court purposes, or unofficial, including testing from "non-standard" samples such as cigarette butts, hair and clothing.

Some also offer tests that look at fairly benign genes, such as the ACTN3 gene for sporting propensity: should you pursue sports based on speed and power or endurance? Certain variations in the TAS2R38 tasting gene can tell you whether you're genetically predisposed to hate cabbage.

However, medical professionals, ethicists and geneticists are warning consumers to be wary of dealing with online genetic test companies, particularly those that offer to tell you whether you're more likely to get certain diseases, from cancer and diabetes to multiple sclerosis and Alzheimer's.

One of the main concerns is that the genetic tests only show whether you have a predisposition to a certain disease, not whether you will actually get it, because environmental and lifestyle factors also play a role. And even if you don't have an elevated

risk of contracting a certain disease, it doesn't mean you won't get it.

In the absence of appropriate counselling, it can be hard to make sense of the implications of the findings: what the mutations mean, how high the risk is and the role that genetic mutations play in developing cancer. So you might be unduly worried or overly complacent. And keep in mind, it's not just you who is potentially affected, it's your family as well.

Australian-based companies we looked at didn't offer this sort of testing direct to the public – you'd have to send samples to companies overseas, which introduces other issues. For one, you can't be sure their laboratories are up to scratch. Furthermore, privacy laws differ from country to country, and you never know how in future circumstances this might come back to haunt you.

In short, you may well end up spending a lot of money and not find out much more than you would from knowing your family history – while compromising your medical privacy into the bargain.

If you have a reasonable basis for concern, such as a family history of a particular disease or disorder, and feel a genetic test could help you make decisions affecting your health and lifestyle, see your doctor. They can arrange a test, as well as counselling. With ongoing support you can formulate an action plan, possibly including other members of your family if they're potentially affected. ■



In brief

Organic groceries not just a fad

It's good news that 40% of consumers now buy organic food, according to a Biological Farmers Association report, but for many of us it's still hard to tell what's legitimate. The increased demand illustrates the need for the draft Australian Standard for Organic and Biodynamic products, which was recently released for public comment. CHOICE has long called for a national standard on organic food and believes that uniform rules will give consumers confidence they are buying truly organic food.



Fraud beats theft

In the past 10 years, the number of break-ins and car thefts has decreased. In 1998, more than 130,000 cars were stolen, while only 70,000 were stolen in 2007. This compares with 800,000 people falling victim to fraud in 2007, including credit card fraud and scams, with a total loss of almost \$1 billion.

National recycling week

Don't know where to recycle your corks or printer cartridges, tyres or batteries?

National Recycling Week from November 10-16 is a good time to brush up on your knowledge. To find out how you can recycle more – and better – in your local area, call the hotline on 1300 733 712, or go to RecyclingNearYou.com.au.



November
10-16

CAN YOU HELP US UNCOVER THE TRUTH ABOUT CREDIT INSURANCE?

We're working on an article about consumer credit insurance, sometimes called repayment protection. It's usually offered if you apply for a credit card, personal loan or a home loan and claims to cover repayments should you become ill, unemployed, have an accident or die. Does the reality measure up to expectations? Help us find out.

The premium for the insurance is usually included in the amount you borrowed or may be deducted monthly from your credit card. For example, there could be a monthly charge on your credit card statement called "Creditcover" or similar.

If you've been offered such a policy or suspect you have one, please contact us at money@choice.com.au and include a daytime phone number. Thanks.

+ DIGITAL VIDEO RECORDER

Putting TiVo to the test

A new way to record – with some teething problems.

While we like what it does, TiVo is not cheap and requires a permanent internet connection.

TiVo offers a means of recording free-to-air digital TV without you having to learn too much about the inner workings of the machine. The remote control and onscreen menu are both easy to use. However, TiVo's real value lies in its ability to free you from having to think too far ahead when planning your TV viewing. It does a lot of the thinking for you, but it's not perfect – even its terms of use acknowledges that mistakes can happen.

What TiVo will do

- Record from free-to-air digital broadcasts.
- Record two channels at the same time.
- Play a recorded program and record on two channels.
- Allow you to pause a live TV broadcast and continue watching it when you're ready, but this is limited by the amount of space available on your hard drive.
- Rewind up to half an hour of live TV.
- Download and display a seven-day electronic program guide (EPG) which is updated daily.
- Allow you to select programs to record from the EPG using the remote control.
- Indicate your preferences using the "thumbs-up" and "thumbs-down" buttons on the remote control.
- Remember preferences and make suggestions.
- Select a "Season pass" which tells the system to record every instance of a particular program. You don't have to know when the program is to be broadcast.
- Automatically record programs by genre, actor, director or that relate to a particular sport.

! UPDATE MORE ON THE HAAGA OUTDOOR SWEEPER

In the September 2008 issue we reviewed the HAAGA TopSweep55. We've since been given additional information. To change direction when using the sweeper, we said that you need to push down on the handles to lift up the front of the sweeper, but this is not possible because the handle moves. The trick is to pull the handle with your left hand and push with the right to turn left, and vice versa to turn right.

The handle is designed to easily move up and down for quick storage and for the sweeper to be tilted upwards to send the dirt to the back of the container. Doing this means you can continue sweeping until the container fills more than the one-fifth capacity we experienced. However, depending on the type of dirt you're picking up, and the angle and unevenness of the path, the dirt may vibrate to the front of the container and be flicked out anyway.



TiVo

Price \$699, plus \$60 for the optional wireless connector
Contact tivo.com.au

What TiVo will not do ... yet

- Allow you to copy recorded programs to another medium, such as DVD.
- Allow you to attach a hard drive to increase its storage capacity. This may happen soon, but could come at a cost.
- Remain fully functional if its connection to the internet drops out. We found it refused to change channel after about seven days offline.
- Show advertising while searching or viewing the EPG. TiVo says this may come in the future.
- Download movies on demand as it does in the US but, again, TiVo says this may come in the future.

In control

TiVo claims it will put you in control of free-to-air TV. At first look we'd agree it's relatively simple to set up, easy to use and its EPG is reasonably well designed.

The main difference between TiVo and most other DVRs is that it's designed to do most of the thinking for you. Its menu system is simple to use and reasonably intuitive, but its tendency to change settings based on your previous preferences could be annoying for some users.

There was consternation in our test home when a scheduled recording was set to delete automatically only a couple of days after the recording date. We then realised it would keep the recording after that date if space on the hard drive was available for other recordings.

CHOICE VERDICT

At first look, we like it. It's not cheap and having to be constantly connected to the internet is inconvenient, but neither are major drawbacks. However, we're not letting TiVo off the hook so easily. We're going to keep watching and you can read our updated comments online over the next few months at choice.com.au. ■

+ CHAINSAW

It's loppin' time

BLACK & DECKER Alligator Lopper GK-1000XE

Price \$149
Weight 3kg
Contact Bunnings



A chainsaw can be a scary thing in a pair of untrained hands. In a backyard, you're more likely to be adjusting a tree's shape than cutting down a forest-sized tree. The Alligator Lopper is an electric-powered chainsaw that claims to make "short work of the toughest logs and branches" and "small branches and vines", so we asked a professional arborist to test these claims.

In the instructions, performance claims translate into a maximum cut diameter of 10cm and a minimum of 2.5cm, which would be suitable for smaller branches and vines, so these claims are accurate – any slimmer and the vibration becomes too great, while any greater than 10cm (we tried up to 15cm) and the jaws are not able to clasp the wood.

The chainsaw works in a scissor-like fashion, with two handles with a button inside each that you press to start the chainsaw. It's very easy to use, however the weight of the motor at the mid point can make it feel unbalanced compared with a normal chainsaw.

If you're working some distance from a power outlet you'll need a long extension cord, so you have to be careful it doesn't go anywhere near the jaws of the product.

Our tester was also concerned with the safety aspect of the way it cuts. As it makes a straight cut, you're not able to direct where the branch will fall. So it could fall onto someone nearby, including the operator, or a building. The instructions show how to avoid it, but warnings on the product would be advisable.

CHOICE VERDICT

The Alligator Lopper is a handy tool and works well. But we recommend you closely follow the instructions and warnings which are supplied separately. CHOICE would like to see a prominent warning on the product itself. ■

+ BENCHTOP FRYER

Guilt-free hot chips

Can you cook deliciously crispy, golden chips with only a spoonful of oil?

The TEFAL ActiFry cooks food with hot air and minimal oil, claiming to make crunchy fried chips with fewer calories than deep frying. The recipe booklet lists recipes for crunchy stir-fried veges, nuggets, meat, fish and even fruit desserts.

We tested it by following two listed recipes: chips and apple wedges. We cooked a kilogram of potato chips with one spoonful of vegetable oil (using the 14mL spoon that comes with the ActiFry), and apple wedges with two spoonfuls of oil.

The chips were very good. They weren't greasy, were golden brown, crisp with fluffy centres and had an oven-baked taste – not like a fried chip. The apple wedges were good: golden, non-greasy and soft on the outside with crisp centres.

The chips took 45 minutes to cook – about the same as when baking them in an oven. Most recipes listed can be done on the stove or in an oven with similar results.

The ActiFry's soft-touch controls are easy to use and are clearly labelled. Its digital timer is easily set, but it doesn't switch off the appliance when the time's up, it just beeps. The cooking parts are dishwasher-safe, and are easy to remove and replace. Food can occasionally get stuck on the lid ledge during cooking, but you can open the lid to manipulate food. And it can be noisy because of the fan.

CHOICE VERDICT

The ActiFry does what it claims, but is expensive, takes up a fair bit of bench space and you can get the same result in an oven using just as little oil. ■

TEFAL ACTIFRY FZ7000

Price \$350
Cooking capacity 1kg
Dimensions (mm, H x W x D) 215 x 420 x 310
Contact tefal.com.au



Coming

80cm TVs



When you go shopping for a television you'll hear all sorts of claims about screen resolution. Should you fork out extra money to buy the higher-resolution screen or will the one with fewer pixels give just as good a picture? We tested the picture quality of high resolution TVs against lower resolution models and were surprised with the results. You will be too.

Next G phones

Telstra claims its NextG network is superior. So we bought 13 NextG phones and put them through their paces in the bush and the city. Check out our upcoming report to see how well they perform, as well as how durable they are in high temperatures and humidity. And go to www.choice.com.au to see how well they cope with our vigorous "drop test".



Small barbecues

If you have limited outdoor space and a large barbecue is out of the question, our test of one- and two-burner barbecues will help you find the right one. All eight models on test are meant to suit small spaces but some are better designed than others.



Email or write – we want to hear from you.

Your experiences help our research and often let other readers know about scams and rip-offs. Positive outcomes you've had to a complaint you took to a manufacturer, retailer, importer or tradesperson interest us too. See opposite for how to contact us.

How 'green' is your tea?

■ The Tefal Quick Cup Kettle (CHOICE, June 2008) claims to save up to 65% of the energy used when making a cup of tea or coffee using a kettle. It sounded like a great way to save on energy, so I purchased one. However, the water doesn't actually boil, so it's impossible to make a cup of tea properly as the water doesn't seem to be hot enough.

After checking the box and instructions, I found there is no information on the temperature of the water. Being very unhappy with the Quick Cup's performance I phoned the Tefal representative and was told that the water temperature reaches only 80°C. I measured the water temperature at the spout and even though it was 80°C, by the time it was in the cup it was only 70°C.

Unhappy, I returned to the retailer and I was lucky, as they took it back. However, just how many of these machines will be pushed to the back of the cupboard and eventually discarded by other very disappointed tea drinkers?

Richard Stanford,
via email



CHOICE says We recently received an email from another disgruntled tea drinker unhappy with his Tefal Quick Cup. We contacted Tefal and a spokesperson said that the Quick Cup delivers hot water after three seconds at 90°C at the spout, which should ensure that the water is at 83°C by the time it's in the cup. Tefal says it should be more than hot enough to prepare tea, instant coffee, noodles and soups. However, tea aficionados say the water should be boiling or just off the boil (about 95°C) and poured into a warmed teapot. CHOICE measured the water at 93°C at the spout. So unfortunately you can't expect a top-notch tea if you're

pouring the water into a cold cup. Heating the minimum required water instead of filling your current kettle can save you energy and deliver a piping hot cuppa.

Product sustainability

■ CHOICE has done really well by getting involved in environmental issues. I'm very concerned about consumerism driving resource depletion and greenhouse gas emissions, while we have to negotiate "greenwash" almost daily. However, while one part of your organisation is doing well, the other part hasn't heeded the message at all. Products are still being assessed for performance with things such as energy efficiency only mentioned in passing. Surely, if I have to buy three toasters instead of one, because one brand always breaks, that affects my purchasing decision from a monetary and environmental perspective?

I believe CHOICE can show that consumers want products that last not just two years, but 10. You could also push the concept of extended producer responsibility. What proportion of the product can be recycled or even reused? Could we fix it if it broke?

Does anyone feel as passionate about this issue as I do? I would love to see CHOICE come up with a set of environmental criteria for every product reviewed, leading to full carbon footprint assessments.

Wendy Yeomans, via email

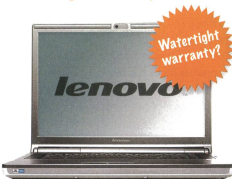
CHOICE says We're passionate about this issue too and we're extending our work in the area of sustainability. We've employed staff who specialise in sustainability issues and are gradually introducing more environmental criteria to our product tests and considering other stages of a product's lifecycle. We also recommend "Green Buys" as well as "Best Buys" in the



magazine, so look out for the new logo next to the appropriate product.

Online, you can check out CHOICE Green, choice.com.au/choicegreen, for all our key sustainability-related research and testing. While we're working hard to improve, we're still far from perfect, so if readers have more ideas about what we should be doing in this area, we'd love to hear from you.

A watertight warranty?



■ Recently the Olympics drew a huge television audience and one of the advertisements on high rotation was for Lenovo laptops, featuring Libby Trickett beside a swimming pool. In the advertisement, a working laptop is dropped on the pool deck tiles then has a cup of water poured over the keyboard.

The purpose seemed to be to show that the laptop still worked normally. I wasn't able to read all the fine print in the brief caption at the end of the ad, but there were words to the effect that liquid spills can void the warranty. So what exactly is the purpose of the commercial? Is it misleading?

Richard Ure, via email

CHOICE says We were able to catch the fine print at the end of this commercial

which reads: "While this ThinkPad survived, spilling liquids on, or dropping your ThinkPad may void your warranty. Air bag protection is available on select models only."

We contacted Lenovo for an explanation. A spokesperson said they believe that the advertisement isn't misleading. Its purpose is to demonstrate the durability and robustness of the computer, as all Lenovo ThinkPad models have spill-resistant keyboards, which can reduce the possibility of the keyboard suffering damage.

However she did go on to say that the warranty excludes "failure or damage resulting from misuse, accident, modification, unsuitable physical or operating environment, natural disasters, power surges, or improper maintenance by the end user". Confused? So are we.

Thumbs up!

■ Kate Ollier bought an electric oven only to discover that she would need an appropriate electrical circuit installed in her house that would cost thousands of dollars. Her electrician recommended trying to swap the electric oven for a gas model instead. Despite Kate having thrown out all the packaging, Harvey Norman provided a full refund with no obligation to purchase a gas oven from the store. Kate says she'll entrust Harvey Norman with all her future purchases after such a good experience.

■ Simon Horne recently bought some tea from the specialist tea shop T2 but wasn't happy with its quality. Not keen to take it back to the city store, he emailed the company instead. He was delighted to receive a replacement packet of tea, which was larger than the original, some sampler packs and a pre-paid postback to return the original tea. T2 also followed up with the results of the analysis of the returned batch. Simon is really happy with the replacement tea and says he didn't think companies provided customer service like this anymore.

■ Evelyne Wagnon was petrified that she'd killed off her Toshiba laptop when she accidentally dropped it onto a tiled floor. When she realised it had survived the fall she wrote to Toshiba to thank them for making such a tough product. Toshiba then contacted her to offer a free service, a new keyboard and even arranged to pick it up.

■ Jeremy Evans gives full marks to Sunbeam, who replaced his electric jug even though it was two-and-a-half years old and well past the 12-month warranty period.

Address your letters to **Thumbs up!** at the address below.

LETTER OF THE MONTH

Beat the banks

■ Thank you so very, very much CHOICE for the Fair Go On Fees letter, which my wife and I used successfully this week. We had more than \$435 in "dishonour fees" which ANZ conveniently call "honour fees".

ANZ had hammered us into submission with these fees and then sent a letter offering an overdraft facility of \$500 for only \$5 extra per month. When I called to set this up, the customer service representative then mentioned that there was 19.95% interest on the money as well – this wasn't mentioned in the letter offering the overdraft facility.

Enough was enough. I found the Fair Go On Fees letter on your website and sent it. It was exactly what I needed. Within a matter of days ANZ reversed the fees and credited our accounts. There was no formal reply, just the dollars back in the account.

So, I'd like to say to everyone with a bank account: the banks are not untouchable and the fees they charge are excessive. Take a few minutes to fill out the Fair Go On Fees letter, print it, add a stamped envelope and you're off. It works! Go get your money back. It is yours.

Clint McLellan

CHOICE says If you want more information on the CHOICE campaign on unfair bank fees or would like to access the letter Clint used, head to www.choice.com.au/fairgoonfees

To thank you for taking the time to write to us, CHOICE awards a prize of a CHOICE book to the Letter of the Month. This month's winner receives *How to Clean Practically Anything*, or any other book of his choice from the list on choice.com.au/books. We're sorry we don't have the resources to answer all your letters personally, and in the magazine we may edit them or print only an extract.



Email ausconsumer@choice.com.au or mail to:
Letters, CHOICE, 57 Carrington Road, Marrickville 2204

Fair go on fees\$



PHOTO COURTESY OF CLINT

How to
Clean
Practically
Anything





Food of the gods enriches us all

Research shows that a little chocolate is good for your heart health, while fair trade and organic chocolate is good for your heart strings as well as your taste buds, according to our expert and lay tasters.

nutshell

► On test: 22 brands of plain dark chocolate with 70%-75% cocoa solids, rated by a panel of expert tasters.

► Research evidence suggests that eating a small amount of dark chocolate won't do much harm, and may do some good.

The good news about the health benefits of chocolate keeps piling up, while the range of fair trade and organic chocolates in supermarkets and health food stores is growing exponentially. Chocoholics finally reckon they have valid reason to indulge – with good conscience. We give you the facts behind the hype, while our expert tasters give us the verdict on the best chocolate.

Is chocolate really a health food?

Media reports in recent years have elevated the status of chocolate from guilt-ridden treat to functional food. By all accounts it's extraordinary that chocolate could even be considered a remotely healthy food. Even dark chocolate, which is considered healthier than milk chocolate, has on average more than 40% fat, including about 26% saturated fat, and almost 30% sugar.

True, it contains about 5%-8% protein and various minerals, including iron, copper, magnesium and zinc. But its main saving grace is that it contains high levels of flavonoids – chemicals that help protect plants from disease and insects. Gram for gram, cocoa contains higher levels of flavonoids than other renowned sources such as red wine, tea, apples and berries.

Studies researching the benefits of both cocoa and chocolate have shown that it improves blood vessel health by stimulating production of nitric oxide. It's also been shown to combat insulin resistance and sensitivity, and improve cholesterol profile.

One specific effect of cocoa flavonoids is that they increase the elasticity of artery walls so they can dilate more readily, which in turn affects blood flow volume and pressure. In fact, chocolate has been found to

reduce blood pressure in people with high blood pressure, and the more you eat, the greater the drop. Reported effects on healthy people are mixed, with either no drop in blood pressure or a small drop but within normal range. Other effects on blood vessels include reducing inflammation and plaque build-up, which can otherwise lead to arteriosclerosis.

Chocolate also decreases blood platelet activity. By clinging together to make clots and to the sides of blood vessel walls, blood platelets are involved in stroke and other clot-related problems such as thromboses, as well as arteriosclerosis. Chocolate has been found to have the same anti-platelet effects as aspirin.

Several studies have found that cocoa or dark chocolate improve cholesterol profile by increasing HDL (good cholesterol) levels and lowering LDLs (bad cholesterol). This might seem counterintuitive, considering the high levels of saturated fats in chocolate. But a lot of one of these saturated fats, stearic acid, is converted to oleic acid – a monounsaturated fat that doesn't raise cholesterol. Combined with the oleic acids already present in the chocolate, these appear to counteract the negative effects of the other saturated fat, palmitic acid, making it at least blood cholesterol neutral and perhaps even lowering it.

Chocolate is healthy, but...

Given these findings, it's not surprising that chocolate is being promoted, especially by manufacturers, as a deliciously useful part of the diet for improving cardiovascular health. Yet many health professionals hesitate to embrace chocolate as the new superfood.

DOES IT HAVE TO BE DARK?

Some people really don't like dark chocolate and prefer milk chocolate. If it means having to eat three times as much to get the same benefit ... well, that's the price that has to be paid for – ahem – good health.

- The trouble is, it's not so simple. Some tests suggest that the milk proteins inhibit the absorption of cocoa flavonoids, so even if you eat more milk chocolate to compensate for the lack of cocoa, or eat milk chocolate with higher cocoa content, you still won't get the same benefit as eating pure dark chocolate.
- The evidence is contradictory: some studies found that milk reduces flavonoid absorption, while others found it doesn't. Discrepancies appear to be partly due to differences between individuals, and in small studies these differences may mask an overall effect.
- The theory also suggests that eating or drinking dairy products just before or after dark chocolate reduces its effects, and at least one study has found this to be true.
- So, while there's no definitive answer on whether milk inhibits the flavonoids' effects, you still get more antioxidant bang for your kilojoule buck by eating dark rather than milk chocolate.

One reason is that it's unclear whether short-term trial effects will translate into long-term, real-life health benefits. Flavonoids are known to interact with certain proteins, fats, sugars and alcohol, which can affect their absorption. In studies of dark chocolate consumption, participants are often required to fast or restrict potential interferents from their diets leading up to the tests, so from a real-life, whole-diet perspective, results may not be quite as spectacular. Nor is it known how long any short-term effects will be maintained. More long-term studies are needed.

A couple of real-life studies linked long-term regular chocolate consumption with better overall health, but that may be more to do with other demographic and lifestyle factors than the effects of the chocolate itself. And while there's good epidemiological evidence that a diet rich in flavonoids is associated with a lower risk of heart disease, there are many different kinds of flavonoids of which just some are in chocolate.

Another concern is that favourable results are often overemphasised, and what is a statistically significant result is not always clinically significant. That is, there may well have been a measurable difference in blood pressure or cholesterol, but not necessarily enough

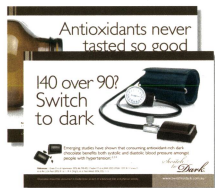
to make a meaningful difference to a person's health. It's been established that there are big differences in the way people absorb flavonoids, so the effects won't necessarily be consistent from one person to another.

To add to the confusion, not all chocolate is created equal – levels of flavonoids may depend not only on the percentage of cocoa in the chocolate, but also the growing conditions, initial handling of the cocoa beans and the manufacturing process. What you buy might not be in the same league as what was proven beneficial in tests.

This makes it hard to pin down how much of which chocolate you need for health benefits. And the amount of chocolate consumed in some of these studies is enormous. The 100 grams of chocolate in some studies would account for more than one-quarter of the average person's daily kilojoule requirements – with little other nutritional benefit. You can understand why health professionals are reluctant to encourage this level of consumption.

Finally, much of the research is conducted or sponsored by the chocolate or cocoa industry, which leaves it open to potential bias, such as not reporting null or negative results. >

ON THE HEALTH BANDWAGON



Chocolate companies have promoted the antioxidant and blood pressure benefits of chocolate to doctors, dietitians and nutritionists in medical literature and on the web.

While there are plenty of other ways to boost your flavonoid intake, chocolate may be the most delicious.

CHOICE verdict

All in all, the evidence suggests that eating a small amount of dark chocolate won't do much harm, and may do some good. If you enjoy strong dark chocolate, you get more of the good stuff – cocoa – and less of the sugar, and your chocolate craving should be satisfied with less. If you substitute junk food such as crisps, cakes, sweets or chocolate confectionery

bars with plain dark chocolate, you may well come out ahead health-wise.

On the other hand, there are plenty of other, perhaps healthier, ways to boost your flavonoid intake: fruit and vegetables give you the added benefits of fibre, vitamins and minerals, while straight black or green tea give you a kilojoule-free antioxidant boost.

< Can chocolate be ethical as well as delicious?

Caution



Healthy cocoa production and consumption

A few years ago, campaigners in the UK called for a lindane-free Easter. Lindane is a carcinogenic pesticide which can also cause damage to the immune system and nervous system while causing hormone disruption,

behavioural changes and birth defects. Until recently, it was widely used on cocoa plantations in West Africa, and tests on chocolate in the UK found traces of the chemical in most samples tested. Little children, campaigners felt, shouldn't be eating lindane Easter eggs.

It's worse, however, for cocoa farmers, who are exposed to far greater amounts of poisonous pesticides when mixing and applying them. They also come into contact with them through accidental spills, inhaled spray drift and drips from drenched leaves, while ground run-off affects drinking water. Cocoa farmers aren't always properly trained or equipped to use these chemicals safely, and many are illiterate and unable to read directions. There's also the potential for the misconception that if some pesticide is good, more is better.

Apart from pesticides' effects on people in and around plantations, many are also highly toxic to fish, amphibians and beneficial insects such as bees – to use impacts on the surrounding ecosystems and other agriculture.

Some farmers grow cocoa using organic farming methods, which eliminates the use of toxic synthetic pesticides. It also helps ensure the enterprise is sustainable in the long-term, thanks to improved soil fertility and prevention of erosion. At present less than 1% of world cocoa production is organic.

A fair go for workers

As well as the health problems associated with conventional cocoa farming, workers are also subject to the vagaries of the international commodities markets and fluctuating prices of cocoa. Indentured or slave labour and child labour are also not uncommon.

Awareness of these conditions in developing countries is rapidly growing and fair trade-certified products are becoming more popular and readily available in supermarkets, health food stores and ethical products traders.

The aim of fair trade is to give farmers and workers in developing countries a fair go by paying the producers a fair price for their work. It involves a labelling system that guarantees certain fair trading standards are met at every stage of production, and ensures that part of the profits generated from a price premium will go back to the farmers and their communities.

There are several certification schemes that have fair trade

or social responsibility components, and all have different requirements – some more stringent than others. There are also companies, particularly small ones, that claim to operate according to fair trade principles, but don't obtain certification because they say costs of infrastructure and auditing would create too great a financial burden on producers and consequently buyers.

No pesticides



Reduced pesticide content mandated

A new EU regulation on pesticide use came into force on 1 September this year. The regulations set out the maximum permissible levels of pesticide residues in cocoa, and effectively bans the use of

certain pesticides, including lindane, dieldrin, malathion and DDT, on cocoa plantations. These and several others on the list have long been banned or severely restricted for agricultural use in many developed countries, but are still used in developing countries.

Pesticides considered benign to chocolate consumers are still permitted, provided they meet the residue guidelines. That's great for consumer confidence and given that much of the chocolate sold in Australia comes from cocoa beans processed in Europe, that covers us.

Some of those still permitted for use can be pretty nasty for cocoa farmers and the environment. And who is to say that the chemicals still approved for use won't prove problematic in the long term? Many argue that the only safe option is to buy organic – for the sake of the farmers, if not yourself.



Guarantees
a better deal
for Third World
Producers

Organic farming

has social benefits too
Fair trade chocolate is almost always organic, including all those in our test. However, organic-certified chocolate, while not always certified fair

trade (like the label above), also tend to be produced in a way that benefits farmers and their communities.

- Small organic chocolate companies often work closely with cocoa farmers. By investing their resources to ensure future yield requirements will be met, they're providing something of a guarantee to communities that future yields will be purchased and at a certain price.
- Buyers pay a premium for organic cocoa. While per hectare yields are lower for organic growers, they don't have the same pesticide and fertiliser costs of conventional farmers.
- Growers benefit from better physical health due to reduced exposure to agricultural chemicals.
- Sustainable farming methods and healthier ecosystems help promote the long-term viability of the enterprise and therefore earnings.
- Many organic certifiers require that labour conditions are fair.

Chocolate on test

Availability and sales of the higher percentage (70%) dark chocolate are increasing as people seek out a cocoa hit that's not too bitter and not too sweet. We found blocks of plain dark chocolate with about 70% cocoa solids and asked our panel of experts to assess them for quality and taste.

The best overall was VALRHONA Guanaja, followed by MICHAEL CLUIZEL Noir de Cacao. VALRHONA and MICHAEL CLUIZEL are premium brands, both manufactured in France, and cost about \$10-\$15 per 100 grams. While these two were among the most expensive on test, a high price doesn't guarantee a good score: MAX BRENNER 100% Pure and DOLFIN Chocolat Noir were in the same price range and didn't score particularly well.

Tied for third place were LINDT Excellence (which is also manufactured in France) and MOSER ROTH (German-made, available only from Aldi). These chocolates were equal top in our lay panel test and they're a lot cheaper than the first two.

Some of the chocolates divided the panel – some loved them and some hated them. We've called these mixed emotions in the table.

While not at the top of the table, the organic and/or fair trade chocolates certainly held their own. EDEL Bio is the best of them, and scored well overall. Also scoring well was Aldi's JUST ORGANIC. Unfortunately, it's going to be discontinued and will be replaced by a fair trade organic chocolate – it might be worth giving it a try to see if it's as good as the JUST ORGANIC.

What about the non-experts?

Sometimes we mere mortals have different tastes from the experts, so we wanted to see if lay tasters agreed with the experts on their preferences.

We also wanted to test how fair trade and/or organic chocolates fared against regular chocolates to see whether everyday consumers who are trying to do the right thing by chocolate growers and the environment will still be satisfied with their chocolate indulgence.

The lay panel's favourites were COCOLO, LINDT and MOSER ROTH (Aldi). EDEL scored well among the people who like dark chocolate. The experts' favourite, VALRHONA, scored quite well, while wooden spoon honours went to CADBURY Old Gold – as it did with the experts. >

HOW WE TESTED

Five chocolate experts assessed 22 chocolates in the range of 70%-75% cocoa. Brand names were disguised as much as possible without spoiling the appearance of the chocolate. Experts were asked to consider the appearance, snap, aroma, taste and texture and give a rating out of 10. They also provided tasting notes. See the table on page 16.

Expert panel



Peter Lee

Peter is managing director and chocolatier, Colefax Chocolates.



Michel Peters

Michel is a food lecturer and chocolate judge at Cordon Bleu International.



Peter Wilson

Peter is a chocolatier at Kennedy & Wilson Chocolates.



Matthew Gee & David Gee

The Gee brothers run a chocolate appreciation course at their barista training school.

CHOICE SELECTION

- **Connoisseur's choice** – when money doesn't matter – VALRHONA Guanaja and MICHAEL CLUIZEL Noir de Cacao.
- **Quality at everyday prices** LINDT Excellence and MOSER ROTH Premium Dark (Aldi).
- **Quality with a conscience** EDEL Bio and COCOLO Dark.



WHAT TO LOOK FOR

Premium chocolate essentials

Appearance It should be smooth and shiny.

Snap When you break a piece of chocolate it should give a good, clean snap.

Aroma In good chocolate, you might be able to detect lots of different smells, such as vanilla, fruit, floral, wine, tobacco, grass and earthy-woody smells. Smoky, burnt, mouldy or dirty smells are a bad sign.

Texture The chocolate should be hard and smooth, and melt easily but not too easily. Bad chocolate is gritty, chalky or waxy, and becomes gummy when it melts in the mouth.

Taste Apart from the flavours of cocoa and vanilla, if it's been added, you might also experience any of the other flavours under aroma above. It should also be pleasantly bitter, although pleasant is a personal thing. Poor-quality chocolate has a tongue-curling effect caused by acid.

WHAT THE EXPERTS SAID ABOUT DARK CHOCOLATE

TABLE NOTES

(A) To be discontinued and replaced with a fair trade organic chocolate.

BRAND (IN RANK ORDER)	EXPERTS' SCORE OUT OF 10	TASTING NOTES	PACK SIZE (g)	COUNTRY OF MANUFACTURE	FAIR TRADE CERTIFIED	ORGANIC CERTIFIED	PRICE/100 g (\$)
Valrhona Guanaja 70% Dark Bitter	9	Good looking; rich aroma; smooth, silky texture; complex flavour with good length, clean finish. "The way dark chocolate should be."	75	France			14.67
Michael Cluizel Noir de Cacao 72%	8.5	Shiny; texture almost perfect; not overly bitter, flavoursome, a very good chocolate.	100	France			9.95
Lindt Excellence 70% Cocoa	8	Shiny; silky texture; great cocoa flavour and aftertaste, not as complex as some, well-balanced.	100	France			3.39
Moser Roth Premium Dark 70% Cocoa	8	Fine looking; good aroma; creamy texture; not complex but well-balanced; "love the bitterness".	125	Germany			2.00
Edel Bio Organic Extra Dark 71%	7.5	Well made, smooth; complex, with fruit and tobacco notes; good length.	80	Holland		✓	4.61
Ghirardelli Intense Dark Twilight Delight 72%	7	Shiny, good-looking; good cocoa aroma and flavour, smoky, pleasant.	100	USA			8.95
Just Organic Dark 70% (A)	7	Shiny; good snap and melt; pleasant flavour and lingering aftertaste.	100	Germany		✓	1.49
Cocolo Premium Organic Dark 70%	6.5	Appearance a bit dull, good flavour, smooth, "a lovely taste for a dark chocolate".	100	Switzerland	✓	✓	5.49
Haigh's Gourmet Dark 70%	6.5	Shiny with rough patches; sweet, pleasant but simple. "Lacks punch."	100	Australia			8.00
Artisse Organic Extra Dark 71%	6	Distinct snap, smooth, slightly pasty texture, flavoursome, complex. "Good for new dark chocolate tasters."	100	Switzerland		✓	5.49
Droste Pastilles Extra Dark 75%	6	Shiny, looks good; pleasant tasting but simple, no stand-out flavours.	100	Holland			2.99
Green & Black's Organic Bittersweet Dark 70%	6	A bit rough; good melt and smooth texture; good flavour, sharp aftertaste.	100	Italy		✓	3.99
Jacques Grand Cru 72% Cacao	6	Looks smooth; slightly waxy/gritty; flavour a bit bland, stale.	100	Belgium			5.95
Max Brenner 100% Pure 70%	5	Dull appearance; excellent texture; simple, one-dimensional, unbalanced, bland.	70	Israel			15.00
Whittaker's Dark Ghana 72%	5	Some rough patches; a little chalky/waxy/gritty; strong cocoa; "good chocolate let down by texture".	250	New Zealand			1.20
Cadbury Old Gold Dark 70%	4	Very sweet for a dark chocolate, unpronounced flavour. "Ordinary."	220	Australia			1.68
Dolfin Chocolat Noir 70% De Cacao	4	A bit rough, air bubbles; bland, "very weak taste for a dark chocolate".	70	Belgium			12.71
MIXED EMOTIONS							
Dagoba Organic Conacado 73%	4-9.5	Rough-looking, waxy texture; pungent, surprising taste, "artificial". Intense, balanced, excellent.	56.7	USA	✓	✓	10.49
Kaoka Noir 70%	4-8	Shiny with bubbles; waxy/gritty/crumblly; good bitterness and flavour, great cocoa flavour, "very pleasant but pedestrian".	100	France	✓	✓	5.29
Nestlé Club Noir Intense 70%	5-9	Shiny with a few spots; strong cocoa aroma; smooth texture; good cocoa taste and bitterness, but a little simple. "Too sweet, commercial."	100	Switzerland			2.99
Ritter Sport Fine Extra Dark 71%	3-7.5	Good texture; good bitterness and cocoa flavour; a bit simple, not distinct enough.	100	Germany			2.99
Scarborough Fair Organic Sinless 70%	3-8	Shiny with bubbles; reasonable snap and melt; completely dominated by caramel notes, buttery.	100	Australia	✓	✓	4.59



Can you **save** on your home loan?

CHOICE shopped around and found home loan savings from \$18,000 to \$46,000 over the life of the loan for three borrowers. We also found traps you need to look out for when refinancing your home loan.

nutshell

- ▶ The best savings were achieved by switching to a credit union or an online subsidiary of a major bank – and you can't get any of those loans through mortgage brokers.
- ▶ A good interest rate isn't everything – you need to check that the costs of switching won't outweigh the savings you would make.

After the dramatic 1% rate cut by the Reserve Bank of Australia (RBA) in October, following a 0.25% cut the previous month, home owners have finally begun to see relief from a period of escalating interest rates. It's a different picture from the high-stress landscape in which we sent out our home loan shoppers in August: the RBA had increased rates 12 times since December 2001, from a cash rate low of 4.25% to a high of 7.25% (it's now 6%).

While falling interest rates have taken the immediate pressure off home owners, the competitive home loan market still leaves plenty of opportunity for canny customers to secure a better deal. Our scenarios highlight the huge savings possible through refinancing – or sometimes just using your research to negotiate a more competitive rate with your existing lender.

CHOICE's home loan shoppers

With their fixed loan term coming to an end, Adam and Debra from Sydney were in for a shock – after three years on 6.47% their interest rate would change to 9.11%, sending their minimum repayment up by about \$775 per month.

Not surprisingly, Adam and Debra were looking around for a cheaper option and agreed to take part in CHOICE's study of the home loan refinancing market. They talked to their current lender about renegotiating the loan and went to two mortgage brokers. Research company Infochoice then put their details through its

database of loans to come up with recommendations. The result: four cheaper options that can save them between \$15,000 and \$46,000 over the life of the loan.

The best savings would be achieved by switching to a credit union or an online subsidiary of a major bank – and neither of these options is available through a mortgage broker. For detailed results for Adam and Debra, as well as for two other households, see pages 18-21.

However, refinancing isn't without risks. Large changeover fees can apply – another of our couples, Luke and Eugenie, would have to pay a \$1620 early repayment fee to refinance. You need to weigh up these costs against the potential benefits when deciding whether or not to change and to which loan.

Which type of home loan?

These are the most common types of home loan.

Fixed rate loans A fixed rate gives you certainty for a period of time so is a good choice when you have to budget. Look for fixed loans that allow you to make extra repayments without penalties.

Timing is important when deciding whether to lock in a fixed rate. If interest rates are expected to rise, as they did over the past few years, a fixed rate is likely to be above the variable rate when you take it out but could stay below it if rates go up. If interest rates are predicted to fall – as they are now – a fixed rate could be lower than the current variable rate when you take it out, but end up higher if rates fall. Even with a fixed rate, the interest rate isn't everything. Make sure you understand "break" costs for paying off the loan early, and any other conditions before you sign. >

\$180

The reduction in minimum monthly repayments for a \$250,000 standard variable rate home loan after major banks passed on a 1.05% rate cut.

Standard variable rate loans Traditionally, these had more features than basic loans. They can include:

- **Split loan** Part of your loan is at a variable and part at a fixed rate.
- **100% offset account** You can store your savings in a separate account linked to your loan and receive a reduction in the interest due on the loan. For example, if you have \$5000 in the account and owe \$250,000, you'll only be charged interest on \$245,000.
- **Redraw** You can store your savings directly in the loan account to help pay it off faster, but withdraw them if needed.
- **Package** with a free bank account and credit card. However, high ongoing fees apply to some packages – Adam and Debra pay \$375 per year in fees.
- **Discount** on the standard variable interest rate up to 0.7% – the more you borrow, the higher the discount.

Basic variable rate loans Basic loans usually have an interest rate 0.5% to 0.7% below the standard variable rate. Again, the interest rate isn't everything. Some basic loans are restricted and have significant disadvantages – they may not even allow extra repayments.

The good news is that cheap basic loans that have most features of a standard variable rate loan are now available, such as the AMP basic loan recommended to Cate, one of our borrowers seeking refinance, (see below). However, basic loans usually don't offer an offset account and may charge higher fees for redraws (up to \$75 per redraw) and higher annual or monthly service fees.

0.7% The discount usually offered on the variable rate if you borrow an amount such as \$250,000 or more.

Current lender unhelpful

Cate lives in a three-bedroom townhouse in inner Sydney. She took out a standard home loan with St George seven years ago and currently owes \$120,000. When she contacted CHOICE her interest rate had just gone up to 9.67% – a large increase compared with the 6.82% she paid when she took out her loan in April 2001.

Both mortgage brokers Cate went to suggested she switch to the AMP basic variable rate loan, which offers all the features of her current loan plus an offset account, but has a higher interest rate than other loan options we found, as shown in the table below.

Because of her relatively small loan amount one of the brokers also suggested trying to negotiate with her current lender. If Cate were a new loan applicant owing what she does today, St George could offer a package with a 0.25% discount on the standard variable rate, or a basic loan. However, when she contacted St George she got poor service and no room for negotiation.

She first went to her local branch but was only given a phone number to call. She left two messages and when she got through on her third try she was offered a loan with a 9.5% rate – plus an application fee of \$600. This option also compared poorly with other loans we found for her.

Cate can make the most savings by switching to either a One Direct loan (an online subsidiary of ANZ) or one from the Victoria Teachers Credit Union, whose membership is open to all; both of which Infochoice found. While Cate's savings of more than \$18,000 are the smallest of our three case studies, they're still substantial.

CATE: LOAN AMOUNT \$120,000, TIME REMAINING 17.5 YEARS

Interest rate options	Home loan	Monthly repayment (\$)	Total interest payable (\$)	Ongoing fee (\$ per year)	Exit fee for old loan (\$)	Entry fee for new loan (\$)*	Total costs (\$)	Total saving (\$)
Lender's interest rate: 9.67%	St George Standard Variable	1187	129,276	120	na	na	131,376	0
Best standard variable rate: 8.61%	One Direct Variable (A)	1108	112,650	0	350	60	113,060	18,316
Best basic variable rate: 8.72%	Victoria Teachers CU Basic Variable (B)	1116	114,351	0	350	600	115,301	16,075
Best rate with current lender: 8.95%	St George Negotiated Basic	1133	117,926	0	0	500	118,426	12,950
Best mortgage broker rate: 9.02%	AMP Basic Variable	1138	119,017	0	350	250	119,617	11,759

TABLE NOTES

Source: Infochoice, 28 August 2008.

* Valuation fees and mortgage stamp duty may also apply.

(A) One Direct is a subsidiary of ANZ and is only available online or over the phone.

(B) Membership is open to all. Victoria Teachers CU has branches in Camberwell and Moonee Ponds (VIC) and its products are available through phone banking.



Cheap basic loans that have most features of a standard variable loan are now available.

Costs of refinancing

A range of fees applies if you refinance, and research by the Australian Securities & Investments Commission has found that credit unions and building societies charge lower fees than big banks, as the graph on the right shows. If you refinance a \$250,000 variable rate home loan within three years, you'll have to pay between about \$200 and \$8100 in fees, depending on your lender. On average, it will cost about \$2256 with one of the Big Four or St George and about \$1388 with a credit union or building society (fees include ongoing fees over three years).

Fees to exit a loan

Discharge fees Up to \$2475, on average \$90 to \$230.

Early termination fees Up to \$5685, on average \$400 to \$2000. They can apply for up to five years and be a percentage of the loan amount or a flat fee. Sometimes they're on a sliding scale – the longer you've had the loan, the lower the termination fee. A trap with some split loans is that you pay the fee twice, double what you expected.

Break costs can apply if you're on a fixed rate.

Fees for the new loan

Application and establishment fees On average, these are \$420 to \$730.

Property valuations Some lenders include valuation costs in the establishment fee, but with others it's an additional charge.

Mortgage insurance is required if you borrow more than 80% of the value of your home and could be close to \$10,000 for a \$400,000 loan if your house is worth \$420,000. It may not be worthwhile switching if you have to pay it again for the new loan.

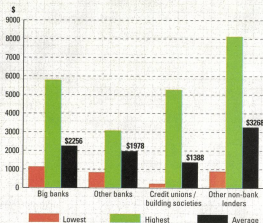
Negotiate with your new lender to waive or reduce as many fees as possible – it's often possible to dodge the application fee. Use the comparison rate when comparing different loans, as it includes some of these costs. >

\$2256

This is the average cost to refinance a \$250,000 variable rate home loan within three years with one of the Big Four banks or St George.

Compare fees

Total fees charged for \$250,000 variable rate loan exited within three years*



Source: Australian Securities & Investments Commission (ASIC) April 2008, Report 125: Review of mortgage entry and exit fees.
* Includes entry (application, valuation, legal, settlement and establishment fees), discharge and early repayment fees and ongoing fees for three years.

Did you know?

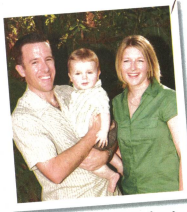
How to get the most out of a mortgage broker An appointment with a mortgage broker is a convenient way to review your loan against alternative offers and discuss your requirements.

Mortgage brokers are paid a commission by lenders, usually about 0.75% of your loan amount upfront and 0.2% per year. For a \$300,000 loan, that's about \$2250 when you take it out. However, banks and other lenders have started to cut these commissions.

A broker has a relationship with a panel of lenders whose loans they offer. To ensure you have a decent range of options, make sure the broker you visit has a panel of at least 20 lenders, which is the industry average.

Make sure the broker belongs to the Mortgage & Finance Association of Australia. MFAA brokers are required to be members of the Credit Ombudsman Service and are subject to the MFAA's code of practice and disciplinary rules. Go to www.mfaa.com.au for more information.

However, as CHOICE's study showed, some of the best loans, such as those from online lenders and some credit unions, are not available through mortgage brokers.



High early repayment fee

Luke, Eugenie and their son Cian live in a freestanding four-bedroom house in suburban Canberra. They borrowed \$360,000 from NAB subsidiary Homeside about three-and-a-half years ago and currently owe \$345,000.

If Luke and Eugenie refinance before the fourth anniversary of their loan they'll have to pay an early repayment fee of 0.45% of their original loan amount: \$1620, plus a \$300 discharge fee.

One of the brokers they visited

therefore suggested they stay with their current lender until then, especially given their interest rate, at 9.04%

in August, was quite competitive. The second broker suggested the ANZ Simplicity loan.

When Luke called Homeside and asked for his payout figure, he was put through to the "home loan retention team" and immediately offered a 0.1% interest rate discount, which he accepted.

Luke and Eugenie could make even bigger savings if they refinanced at a cheaper rate with the Community CPS credit union (available in the ACT, SA, WA and some NSW regional areas) and the One Direct loan (an online subsidiary of ANZ) which Infochoice found for them. However, it would still be worth their while to wait six months to avoid paying the early repayment fee.

LUKE AND EUGENIE, CANBERRA: LOAN AMOUNT \$345,000, TIME REMAINING 21.5 YEARS

Interest rate options	Home loan	Monthly repayment (\$)	Total interest payable (\$)	Ongoing fee (\$ per year)	Exit fee from old loan (\$)*	Entry fee for new loan (\$)	Total costs (\$)	Total saving (\$)
Lender's interest rate: 9.04%	Homeside Homeplus Package Standard	3037	438,558	120	na	na	441,138	0
Best standard variable rate: 8.61%	One Direct Variable (A)	2940	413,575	0	1920	60	415,555	25,583
Best basic variable rate: 8.60%	Community CPS CU Basic Variable (B)	2938	412,999	132	1920	495	418,252	22,886
Best mortgage broker rate: 8.92%	ANZ Simplicity Plus	3010	431,552	0	1920	760	434,232	6906
Best rate with current lender: 8.94%	Homeside Offset Variable	3014	432,718	120	0	0	435,298	5840

TABLE NOTES

Source: Infochoice, 28 August 2008.

* Exit fee is based on the original loan amount of \$360,000 (0.45% fee plus \$300 discharge). Valuation fees and mortgage stamp duty may also apply.

(A) One Direct is a subsidiary of ANZ and is only available online or over the phone.

(B) Community CPS credit union has branches across SA and the ACT; in NSW it's based in Batemans Bay and Queanbeyan. It's announced its intention to merge with WA United CU.

USING THE TABLES

Home loans Infochoice selected the cheapest standard and basic loans available. We specified that standard loans should have a free redraw facility and basic loans should allow redraws; both had to allow extra repayments. We compared the cheapest offer each household got from a broker and the cheapest loan from their current lender. Selections were made on 28 August 2008.

Update Because of recent Reserve Bank rate cuts, home loan interest rates have decreased. However, the comparison still illustrates the savings you can make by checking several loans. In October, the cheapest options for our home loan shoppers had changed their rates.

Basic variable loan

- Community CPS CU – 7.83%. Early repayment fee: 2.1% of current loan balance in first 11 months, 1.4% for 12-23 months, 0.7% for 25-36 months.
- Victoria Teachers CU – 7.67%. Early repayment fee: one month minimum repayment in the first five years.

Standard variable loan

- One Direct – 7.55%. Early repayment fee of \$1400 in year one and two, \$1000 in year three and four.

Steps to refinancing

- Cheap rate or full package?** Don't pay for features you don't need. Decide which loan features you'll use, such as an offset account or redraw facility, and whether you want to fix all or part of the loan.
- Shop around** Do some internet research, check the Top 25 home loan tool at www.choice.com.au/money, or see one or two mortgage brokers.
- Talk to your current lender** Ask for a payout figure, including all fees. Try to negotiate. You might get a discount on your interest rate or perhaps switch to a more suitable loan with your current lender.
- Add up all the costs and benefits** From your payout amount, figure out the total interest payable over the life of your loan then compare other loan options. Include the fees and penalties involved in paying out your existing home loan and establishing the new one to work out whether the loan you're considering will leave you better off or not.



Stay with the Big Four?

Adam and Debra live in a four-bedroom semi in Sydney. They took out their NAB home loan four years ago and for the past three years were on a 6.47% fixed rate, due to revert to a 9.11% variable rate. They still have to pay \$470,000. At the moment they only want a low interest rate and are not interested in any bells and whistles.

Both brokers recommended the Westpac standard loan package. One of them suggested switching to Westpac, while the other advised them to ask their current lender to match the Westpac offer. When Adam contacted NAB in late August, though, he was only offered the standard products.

"The customer service officer mainly promoted the three-year fixed rate," he said. But he was told

that to lock in the fixed rate at the current level, he would have to pay a fee of more than \$700. Adam declined. This turned out to be a wise decision – in late August the rate was 8.99%, but had decreased a month later.

As with the other households in our study, CHOICE found a credit union and an online lender with better savings than those recommended by the mortgage brokers. Because of their large loan amount Adam and Debra's savings would be the largest, ranging from about \$14,700 with the Westpac loan to \$46,000 with a standard loan from One Direct.



PHOTO COURTESY OF ADAM AND DEBRA

ADAM AND DEBRA: LOAN AMOUNT \$470,000, TIME REMAINING 21 YEARS

Interest rate options	Home loan	Monthly repayment (\$)	Total interest payable (\$)	Ongoing fee (\$ per year)	Exit fee from old loan (\$)*	Entry fee for new loan (\$)	Total costs (\$)	Total saving (\$)
Lender's interest rate: 9.11%	NAB National Choice Package	4191	586,206	375	na	na	594,081	0
Best standard variable rate: 8.61%	One Direct Variable (A)	4039	547,768	0	300	60	548,128	45,953
Best basic variable rate: 8.72%	Victoria Teachers CU Basic Variable (B)	4072	556,171	0	300	600	557,071	37,011
Best rate with current lender: 8.90%	NAB Base Variable	4127	569,989	0	0	0	569,989	24,092
Best mortgage broker rate: 8.91%	Westpac Premier Advantage Homeloan	4130	570,757	395	300	0	579,352	14,729

TABLE NOTES

Source: Infochoice, 28 August 2008.

* Valuation fees and mortgage stamp duty may apply.

(A) One Direct is a subsidiary of ANZ and is only available online or over the phone.

(B) Membership is open to all. Victoria Teachers CU has branches in Camberwell and Moonee Ponds (VIC) and its products are available through phone banking.

CHOICE verdict

You should review your loan every couple of years or if your situation changes.

There are four important points to remember.

The interest rate isn't everything When deciding whether to refinance, compare the costs of switching against the interest savings, and check what would happen if you wanted to switch again down the track. For example, does the new loan have a high early repayment fee and for how long would it apply?

It pays to do your own homework While going to a mortgage broker is convenient and gives you ideas about options, they don't always offer the best deals, as the three households in our refinancing exercise found out.

Credit unions and building societies are worth a look On average they have lower variable interest rates and lower fees than the Big Four banks. In our exercise, we found a basic variable rate loan from a credit union that had a cheaper interest rate than the accounts recommended by mortgage brokers. It also found an even cheaper standard variable rate loan from the online subsidiary of a major bank – they're worth investigating too.

Check your current lender's latest offers Talk to your current lender before making the switch. They may allow you to switch to a more suitable loan or give you a discount rather than lose your business. ■

Always
check your
current
lender's
latest offers
and talk to
them before
switching.

The great dilemma



Fish is good for our hearts and brains, but what about the toxic chemicals some fish contain? Then there's the question of whether large-scale fishing destroys fish stocks and damages the environment. We guide you through the debates.

nutshell

► Evidence shows that eating two or three meals of oily fish a week lowers your risk of heart disease.

► Fish at the top of the food chain, such as swordfish, marlin and shark, could contain mercury at levels that harm infants and small children. These species are also most likely to be harvested unsustainably.

► There are plenty of fish species, both fresh and processed, that are good for you and are harvested sustainably.

We know fish is good for us. It's low in saturated fat, high in protein and a good source of iodine. Oily fish is rich in omega-3 fatty acids and is a good source of vitamins A and D. But there are concerns that some fish is contaminated with mercury or other harmful chemicals – and that predatory commercial fishing methods are stripping the oceans of fish, killing seabirds, dolphins and turtles, and destroying coral reefs.

CHOICE investigates the benefits and risks of eating fish. The good news is that we found plenty in fish shops and supermarkets that are both good for you and are harvested with minimal damage to fish stocks or the environment.

The upside of eating fish ...

These are some of the important health benefits you get from the omega-3 fatty acids EPA and DHA found in fish.

Heart health There's now strong evidence that eating fish can reduce your risk of heart disease. Oily fish particularly is a good source of omega-3 fatty acids; eating it regularly can reduce your chances of a fatal heart attack by 25% or more. The National Heart Foundation now recommends we eat two or three serves of oily fish a week. See the table on page 25 for the fish with the highest levels of omega-3s.

Smarter brains There's evidence that omega-3s are good for the brain development of infants, even before they're born. Omega-3s from fish in the mother's diet cross the placenta, and infants breastfed by mothers who regularly eat oily fish or take fish-oil supplements appear to develop better visual function, which is an indicator of

improved brain development. There's also a growing body of evidence that suggests EPA and DHA may decrease the risk of cognitive impairment and dementia as we get older.

Wider benefits Other potential health benefits from eating fish have been suggested but the evidence isn't as strong. These include lowering the risk of rheumatoid arthritis and, less convincingly, depression and asthma.

... and the downside

Unfortunately fish, especially oily fish, can contain low levels of highly toxic pollutants, and farmed fish can be contaminated by antibiotics and other chemicals used to control diseases. The toxins of greatest concern are mercury and PCBs.



Mercury This highly toxic metal can affect brain development in children, even at very low levels. It's found in small quantities in seawater but it accumulates as methylmercury – the most toxic form of mercury – in the flesh of long-lived fish at the top of the food chain, such as swordfish, marlin, shark (flake) and some species of tuna. The New York City Health Department recently analysed blood samples for mercury and other heavy metals and found significantly higher levels in people who ate more fish.

Health authorities advise pregnant women, women intending to become pregnant and children under 16 to limit shark, marlin or swordfish intake to no more than one serve per fortnight – and the rest of us should have no more than one portion a week. These species are also best avoided because they're not likely to be harvested

sustainably. As a general rule, small fish are good for small children – and pregnant women.

X PCBs and dioxins These chemicals come from industrial pollution and are a known cause of cancer and may be associated with other health risks as well. They're in many foods, not just fish. In the US, beef, chicken and pork are the biggest food sources of PCBs and dioxins (34%), while fish and shellfish account for only 9%. In Australia, dioxin levels in fish appear to be low, but questions have been raised about dioxin and PCB levels in imported fish.

X Chemicals used in aquaculture Fish farmers use antibiotics and other chemicals to prevent disease and parasite infestations. Food Standards Australia New Zealand (FSANZ) has tested for chemical residues in both domestic and imported farmed fish. The tests found the fungicide malachite green in 16% of domestically farmed fish and 17% of imported farmed fish. Testing by the Australian Quarantine and Inspection Service (AQIS) found the antibiotic nitrofurans in some imported prawns. Legally these substances can't be present in food at any level of concentration, yet FSANZ claims their findings raise no real public health and safety concerns.

Food imported to Australia is inspected by AQIS, but on average it tests only 5% of consignments. Fish contaminated with prohibited chemicals are rejected, however, 95% of consignments are not routinely tested, nor are most domestically produced fish. CHOICE wants to see Australian consumers better protected by more extensive and more rigorous testing as in the US, where a government surveillance program repeatedly found malachite green and other banned chemicals (fluoroquinolones, nitrofurans and gentian violet) in farmed seafood from China. The US Food and Drug Administration now requires all shipments of some species of farmed seafood from China to be tested. They're only released for sale when shown to be free of prohibited substances.

Supply and demand – or pillage and plunder?

Worldwide, the demand for wild fish is now greater than the ocean can supply. Fishing methods are more efficient than ever and more fish are caught than can be replaced naturally. Southern bluefin tuna was once cheap and plentiful enough to go into canned tuna; it's now an expensive rarity. There are two main ways of looking at sustainability: is the fish stock sustainable, and does the fishing method cause environmental damage?

Stocks Australian fisheries are generally well managed, by international standards. But, of 97 species surveyed in the Australian Government Bureau of Rural Sciences' >

CHOICE guide to healthy and more sustainable fish

When you're buying fish, what do you choose? Which fish give you the most omega-3s and least toxic chemicals while coming from a sustainable fishery? In the table we've compared some of the species of fish you're likely to find at your local shopping centre or fish shop.

? Fresh fish Fresh fish are best for flavour and texture, except when they're really frozen fish that have been "thawed for your convenience".

Swordfish is an excellent source of omega-3s but is best avoided because of its relatively high mercury content and doubts that it's being sustainably harvested. Atlantic salmon is a good choice if aquaculture doesn't worry you for environmental or other reasons. There are Australian species that are harvested sustainably and contain healthy levels of omega-3s. Most shops have basa, a species of catfish farmed in the Mekong Delta in Vietnam. It's cheap but has very low levels of omega-3s and will have been frozen.



? Frozen fish Packaged frozen fish is a convenient standby that's quick and easy to prepare. Again, Atlantic salmon is the best choice for omega-3s, but if it's frozen it might have been harvested from sea cages which can have negative effects on the environment. Hoki is used most often in frozen fish portions. It has lower levels of omega-3s than Atlantic salmon, but still useful amounts. The New Zealand hoki fishery has been certified by the Marine Stewardship Council, so check the label for that logo (see *Labels and logos*, page 25). Other hoki fisheries haven't been certified and may not be as carefully managed.

? Canned fish Herring, sardines and mackerel are outstanding for omega-3s. These small fish from northern waters can be harvested sustainably because they're fast-growing and low in the food chain.

Canned Pacific salmon is also a good source of omega-3s. Also called red or pink salmon, these fish are different species from Atlantic salmon. They're harvested from the wild, using nets. The Marine Stewardship Council has certified Alaskan but not the Canadian Pacific salmon fisheries, and some brands of canned salmon carry that logo.

Most canned fish comes from the other side of the world, raising the issue of food miles. But preserving food in cans uses less energy and creates fewer greenhouse gas emissions than freezing. It takes more energy to make the can than the cardboard packaging, but frozen foods require more energy for processing and distribution.



The demand for wild fish is greater than the ocean can supply – so sustainable fishing is important.

Retailers are now legally required to display the country of origin. However, this can be so vague as to be almost meaningless.

< most recent *Fishery Status Report*, only 27 were not overfished. And more than 60% of our fish is now imported.

Fishing methods All fishing has an environmental impact, but some methods can be particularly destructive of fish stocks and other wildlife. Non-selective fishing gear may catch and kill immature fish and unwanted species thrown away as “bycatch”. Dolphins, turtles and seabirds – often vulnerable or endangered species – can become entangled in nets and killed. Lost or abandoned fishing gear continues to catch fish (and other marine life) until it falls apart – a process that can take years. Two methods are of particular concern.

- **Trawling** In this widely used fishing method nets are towed behind a boat and dragged along the ocean floor. Trawling can damage the seabed, destroying marine life and habitats on which the fish depend for food. Trawling accounts for about 50% of the fish wasted as bycatch.
- **Drifting** Long lines are used to catch tuna, marlin, swordfish and sharks. A main line, which can be a staggering 10km-80km long, floats on or near the ocean surface. Along this main line there are numerous branch lines with baited hooks. There's concern about the impact on dolphins, whales and turtles, as well as endangered seabirds, such as albatross. Unfortunately “dolphin safe” or “dolphin friendly” claims on fish products mean very little. There's no universal and independent verification of such claims. Undoubtedly, many companies try to do the right thing, but there's no guarantee.

In the UK, the Food Standards Agency is reviewing its advice on eating fish to take into account issues related to sustainability. CHOICE wants the next revision of the Australian Dietary Guidelines to consider the impact of fishing practices in its advice on eating fish.

Fish farming

Aquaculture is a big industry in Australia. Snapper, barramundi, southern bluefin tuna, mullet, mulloway, Atlantic salmon and trout are grown in sea cages, while prawns are grown in saltwater ponds built in wetlands along Australia's tropical coast. This might seem to be the answer to the problem of sustainability, but fish farming raises environmental issues of its own.

- Farmed fish are more crowded than in the wild and therefore more susceptible to disease. Antibiotics and other chemicals are used to control disease outbreaks, and diseases can spread to native fish stocks.
- Farmed fish can escape from sea cages. Atlantic salmon are voracious predators and can wreak havoc on native fish stocks – so there's a moratorium on salmon farming expansion in British Columbia, Canada.

- Dissolved and solid fish waste from sea cages can pollute coastal waterways.
- Sea-cage fish are fed a diet that uses wild fish, such as sardines and mackerel, to produce fishmeal. It takes 2kg-4kg of wild fish to produce 1kg of farmed Atlantic salmon. It would seem more responsible to forgo the Atlantic salmon and eat the sardines and mackerel ourselves – and they are better sources of omega-3s than salmon.

Raising fish such as prawns, salmon and barramundi in fully enclosed tanks or ponds seems to be preferable, as the output of waste materials can be controlled. These operations can cause environmental degradation through clearing of mangrove forests and destruction of wetlands, but with appropriate care and expertise, fish farms can be ecologically designed and sustainably operated.

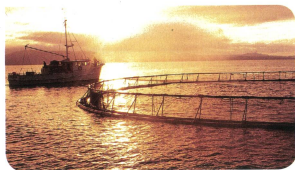
What fish is that?

Inadequate labelling also confuses the issue. There's now an Australian Fish Names Standard, but it's only voluntary. Without this information you can't be sure what species of fish you're buying, and it's even less likely you'll be able to find out how it was caught. When you're buying whole fish you might at least have an idea of what you're getting, but fillets can be a complete mystery.

We found plenty of fish in supermarkets and specialist fish shops with names that aren't in the standard, and were disappointed to find that some of these are from the big name brands of frozen fish, Sealord and I&J.

Retailers are now legally required to display the country of origin. However, this can be so vague as to be almost meaningless, such as prawns labelled as coming from “China, Vietnam or Thailand”. Manufacturers of canned or frozen fish can also hide behind the catch-all “Made in Australia from local and imported ingredients”.

In the UK many unprocessed fish products must now be labelled with the production method; that is, whether it was farmed or caught in the wild, and where. CHOICE would like to see a similar mandatory system here. Meanwhile, if the species of fish or its country of origin is unclear, don't buy it. ■

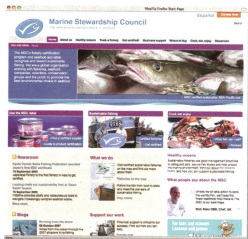


CHOICE
wants the
Australian
Dietary
Guidelines
to consider
the impact
of fishing
practices.

LABELS AND LOGOS

Marine Stewardship Council This international organisation has developed standards for sustainable fishing, which are published on its website www.msc.org. It has certified sustainable fisheries in most parts of the world, including two in Australia. Its logo on canned or frozen fish is a good indication that the product came from a sustainable fishery.

Approved fish names Retailers displaying this logo are committed to accurately labelling their fish using the Australian Fish Names Standard.



FISH NAME (IN ORDER OF OMEGA-3S WITHIN GROUPS)	OMEGA-3 FATTY ACIDS	ORIGIN	SUSTAINABLY HARVESTED
FISH SHOP AND DELI COUNTER			
Swordfish	***	Fiji, Indonesia	
Atlantic salmon	**	Australia	
Spanish mackerel	**	Australia	
Blue-eye trevalla	*	Australia	
Flathead (A)	*	Australia	
Flounder	*	NZ	
John Dory	*	Australia, NZ	
Mullet	*	Australia	
Sand whiting	*	Australia	
Snapper	*	Australia	
Barramundi	☆	Australia	
Basa	☆	Vietnam	
Ling	☆	Australia, NZ	
Orange roughy	☆	Australia	
Prawns (A)	☆	Australia, China, Vietnam, Thailand	
Tuna (A)	☆	Australia, Fiji, Indonesia, Thailand	
FROZEN			
Atlantic salmon	***	Australia, Norway	
Flathead	*	Malaysia	
Hoki or Blue grenadier	*	NZ	
John Dory	*	Australia, NZ	
Hake	☆	South Africa	
CANNED			
Herring	***	Canada	
Mackerel	***	Scotland	
Pacific salmon (A)	***	Canada, USA	
Sardines (A)	***	Portugal	
Tuna (A)	**	Thailand	

USING THE TABLE

The fish species listed are those we found generally available in supermarkets and specialist fish shops in Sydney in August 2008.

Fish name For fresh fish we've used the preferred name from the Australian Fish Names Standard; for processed fish we've used the name on the label for ease of recognition.

Omega-3s This gives an indication of the amount of EPA and DHA – the omega-3 fatty acids that confer health benefits – per 150g serving of fish. The actual values vary with the season and where the fish was caught, and some fish names such as 'pacific salmon' and 'prawns' cover several different species. The recommended daily intake is 600mg for men and 400mg for women.

*** More than 1000mg per 150g serve.
** Between 1000mg and 500mg per 150g serve.
* Between 500mg and 200mg per 150g serve.
☆ Less than 200mg per 150g serve.

We calculated the values for processed fish from information on the packaging; for fresh fish from data published by the CSIRO.

Origin This is the country where the fish was harvested according to the label or notice displayed at the point of sale.

Sustainably harvested This is a contentious issue on which opinions differ, and often there's a lack of hard scientific evidence. We've tried to assess the most likely status of each of the fish in the table based on Australian government and United Nations Food and Agriculture Organisation surveys.

From what appear to be sustainable fisheries.

Fish that are under pressure and may be overfished.

Overfished and of significant conservation concern.

TABLE NOTES

(A) Can be from a number of different species.



The upside to downsizing

Laptops are a portable and energy-efficient alternative to bulky desktops. We give you a step-by-step guide to buying the right one for your computing needs.

nutshell

► Seven steps to help you buy a laptop.
► Your needs will determine what specifications your laptop should have.

Laptops are light, portable and take up less space than a desktop computer. They use about 20% less energy than desktops and most are fast enough for all but the most demanding applications. The major drawbacks are that they typically cost more than a desktop with the same specifications, upgrading a laptop is more of a challenge and spending hours typing on a smaller keyboard can be a painful experience. While there are a lot more PCs than Apple laptops in the market, most of the advice that follows, except for software, applies to either. >

Jargonbuster @!?

CPU Central processing unit, also called the processor or chip. This is the engine of the computer. Generally the higher the processing speed, the better your computer will perform.

DDR RAM Double data rate random access memory. A very fast type of RAM, and DDR2 is even faster.

Dedicated graphics A separate graphics processing card with memory specifically allocated to graphics.

GB Gigabyte. A measurement of data. 1GB = 1024MB.

HDD Hard disk drive. The central storage area of your computer for files and programs.

Integrated graphics A chip on the motherboard that shares the video memory with the processor. These don't perform as well as dedicated graphics cards.

MB Megabyte. A measurement of data. 1MB = 1024kB.

Memory Your computer has two types of memory: long term (hard drive) and short term (RAM).

PCIe Also known as PCI Express, this is the most common internal connection slot on modern computers for attaching components such as dedicated video cards and sound cards.

RAM Random access memory. RAM stores information only when the computer's power is on.

ROM Read-only memory. ROM stores information even when the computer's power is off. Most often used to hold instructions for the computer that it needs to operate rather than storing user data.

Seven steps before buying a laptop

1 Affordability Start by setting a budget. There's no point looking at laptops that have all the bells and whistles only to discover they're beyond your price range.

2 Usability List the tasks you need a laptop for and think about where you'll use it. Compare this with our user profiles, right, to determine the components, features, size and battery life you will need.

3 Try before you buy The keyboard size, layout, mouse type and key pitch (the distance from the centre of one key to the next) vary among models, and you'll find some more comfortable than others.

4 Service Ask the salesperson if the warranty is based locally. What's the turnaround time for repairs? Can the laptop be serviced when you're travelling? If your laptop has to be sent away for repairs, will they provide you with a temporary replacement?

5 Retailer Consider buying from smaller retailers rather than national chain stores. Big doesn't always mean better and some smaller stores may have good deals.

6 Warranty Be wary of buying extended warranties – they offer little extra protection in addition to your consumer rights. If you have problems after the warranty expires, remember that the Trade Practices Act offers some protection. Products should last for a reasonable time, regardless of the warranty period.

7 Durability Laptops are more susceptible to damage than desktop computers, so safeguard your investment with a protective carry case.

User profiles

To get an idea of the specifications and features that are most likely to suit you, decide which of these profiles best matches your needs. See pages 28-29 for a description of these terms.

FAMILY ALL-ROUNDER

PRIORITIES Flexibility, low price. You mainly use your laptop at home for general computing tasks. It needs to be portable enough to move between rooms, yet powerful and versatile enough to meet the whole family's demands and do whatever you would do on a desktop PC.

WHAT YOU NEED

- **PROCESSOR** Intel Core Duo or Core 2 Duo, AMD Athlon for Notebook PCs or Turion mobile.
- **RAM** 1GB-2GB or more.
- **GRAPHICS CARD** Dedicated 128MB or more.
- **HARD DRIVE** 120GB or more.
- **DRIVES** DVD writer.
- **DISPLAY** 15-19 inch.
- **SOFTWARE** Windows XP Pro or Windows Vista Home Premium; internet security suite. Mac OS X 10.5.



PRICE RANGE
\$1500-\$4000

Other things to consider If the laptop won't be moved much, you can plug in an external keyboard and mouse from a previous PC or buy them cheaply.

MULTIMEDIA POWERHOUSE/ DESKTOP REPLACEMENT

PRIORITIES Powerful processing, grunty graphics and a big hard drive. If you're into 3D gaming or editing large photo and movie files, you'll need a plenty of memory, fast graphics and lots of storage.

WHAT YOU NEED

- **PROCESSOR** Intel Core 2 Duo, AMD Turion mobile.
- **RAM** 2GB or more.
- **GRAPHICS CARD** Dedicated 256MB or more; or dual graphics cards with scalable link interface (SLI) connection.
- **HARD DRIVE** 160GB or more.
- **DRIVES** DVD writer.
- **DISPLAY** 17-19 inch.
- **SOFTWARE** Windows XP Media Center or Windows Vista Ultimate; internet security suite. Mac OS X 10.5.



PRICE RANGE
\$2000-\$5000

Other things to consider Look for good battery life – these big processors and large screens use more power than smaller units. A widescreen format (16:9) is better for viewing movies.

ULTRA-PORTABLE

PRIORITIES Portability, battery life. You spend a lot of time on the road, in airports or moving between offices. Portability is everything – you need a small, lightweight laptop that's easy to carry around.

WHAT YOU NEED

- **PROCESSOR** Intel Atom, Core Duo or Core 2 Duo, AMD Athlon or Sempron for Notebook PCs, Turion mobile.
- **RAM** 1GB or more.
- **GRAPHICS CARD** Integrated.
- **HARD DRIVE** 80GB or more.
- **DRIVES** DVD writer.
- **DISPLAY** 12-14 inch.
- **WI-FI** Wireless networking capability.
- **SOFTWARE** Windows XP Pro or Windows Vista Home Premium; internet security suite. Mac OS X 10.5.



PRICE RANGE
\$2000-\$4000

Other things to consider Look for a model with good battery life that weighs 2kg or less, and you should consider investing in a second battery.

STUDENT/BUDGET

PRIORITIES Portability, battery life, low price.

You need a budget-priced laptop portable enough to slip into a shoulder bag en route to the library or class, but powerful enough to get the job done.

WHAT YOU NEED

- **PROCESSOR** Intel Core Duo or Core 2 Duo, AMD Athlon or Sempron for Notebook PCs, Turion mobile.
- **RAM** 1GB or more.
- **GRAPHICS CARD** Integrated.
- **HARD DRIVE** 80GB or more.
- **DRIVES** DVD writer.
- **DISPLAY** 12-15 inch.
- **WI-FI** Wireless networking capability.
- **SOFTWARE** Windows XP Home or Windows Vista Home Basic; internet security suite. Mac OS X 10.5.



PRICE RANGE
\$1000-\$1500

Other things to consider Look for good battery life. If the laptop isn't moved much, keep an external keyboard and mouse from a previous PC or buy them cheaply. Keep an eye out for cashback and other offers that can reduce the price considerably.

FEATURES TO LOOK FOR

Once you've decided on the specifications for your laptop, you will need to think about the features that are important to you.

Weight Laptops can range in weight from 1kg (imagine a block of cheese) to hefty all-purpose models that weigh 4kg or more. Buying a model with a removable or external disc drive can help keep the weight down, and don't forget to allow for the cables and carry case when you're considering a laptop's weight.

Batteries Manufacturers can claim up to eight hours of battery life, but most laptop batteries last only two to five hours in general use. Playing a DVD uses a lot of power, but most batteries will get through a movie before requiring a recharge. A second battery is a good option for travellers. Some laptops are sold with a spare battery included. If you need to buy one, they usually cost between \$70 and \$300, depending on size. The battery life of a laptop can depend on a number of factors.

- **Processor power (CPU)** The more powerful the processor, such as 2.3GHz versus 1.8GHz, the shorter the battery life.
- **CPU type** Some processors are labelled "low voltage" or "low power" and use about half the power of a standard CPU, while "ultra low voltage" or "ultra low power" processors use about one-fifth.
- **Applications running** can cause hard drives to spin and will drain power a lot faster.
- **Power settings** These can be found in the preferences or control panel menus on Windows. Dimming your screen and turning off unused applications will also help. As will putting the laptop in standby mode when not in use.
- **Battery capacity** Measured in milliamp hours (mAh), the bigger the number, the longer it should last.
- **Battery cells** The more the better – for example, eight cells are better than six.

Speakers Many new laptops have DVD drives, which can be used to play DVD movies. However, the built-in speakers are not likely to contribute much to your cinematic experience. If sound is important to you, make sure there's a headphone socket to connect external speakers.

Webcam and integrated microphone These can be used for VoIP video calls with applications such as Skype.

Software Most new PCs are sold with one of the five versions of Windows Vista. However, some are still sold with a version of Windows XP, such as XP Media Center. Microsoft will support XP for another two years, followed by five years of extended support, so don't feel that it's archaic.

In fact, it can be an advantage to use an older version of Windows – they tend to have fewer bugs than the latest releases. Running Vista also requires a higher-specification machine than Windows XP, so if you're looking for a budget laptop it may be best to run XP with its lower requirements.

Getting connected

When choosing a laptop, think about what you will want to connect to it.

- Will you want to connect to a printer, scanner, digital camera, MP3 player, or other external device?
- Will you want to connect to networks: a home office local area network (LAN) or the internet?
- Will you want to connect to separate components, such as a larger computer monitor, mouse, keyboard or speakers?

The greater the number and variety of ports, the greater flexibility you'll have. As a general rule, look for a laptop with a lot of USB ports as they're the most common for connecting keyboards, MP3 players and other devices.

Connection options

PC Card

Used to expand memory or connect to network cards, modems and external hard drives.



FireWire

A very fast connection for video camcorders and external hard drives. It's officially called IEEE 1394 but is commonly known as FireWire, however SONY calls its version i.LINK.



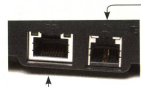
Audio

For connecting speakers/headphones and a microphone.



PS2 mouse

Also called PS/2 ports. These colour-coded ports connect a mouse or keyboard and are still included on many computers, even though new mouse and keyboard connections are generally via USB.



Modem port

For a dial-up telephone connection. Broadband modems use an Ethernet or USB port.

Network

Ethernet port for connecting to other computers on a network.

USB ports

Universal serial bus (USB) is the preferred connection method for many devices, including cameras, printers and USB keys. USB 2.0 is much faster than USB 1.1.



VGA port

An analogue connection to your monitor. You can connect both flat LCD monitors and glass CRT monitors using this socket.



DVI

A digital high-definition connection to an LCD monitor. Many dedicated graphics cards have a DVI connection.



As well as deciphering the technical specs of a laptop, you'll need to think about what features are important to you.

< What do the technical specifications mean?

When you're shopping around for a laptop computer, you'll be confronted with a lot of information about specifications. Here's what you need to know.

Processor (CPU) The processor is the engine of your laptop. Generally, the higher the processing speed, the better your computer will perform.

Most laptop processor speeds range from 1.6 gigahertz (GHz) to 2.6GHz and are usually AMD or Intel brands. Processor speeds are not directly comparable across brands. It's best to buy the fastest processor you can afford.

The type of processor can also make a big difference. Dual core processors are generally the fastest, especially for multitasking. AMD's X2 processor and Intel's Core 2 Duo are the fastest of their commonly available laptop products.

- **AMD processors (slower to faster)** Sempron for Notebook PCs, Athlon for Notebook PCs, Turion mobile.
- **Intel processors (slower to faster)** Atom, Core Solo, Core Duo, Core 2 Duo.

Memory The more random access memory (RAM) you have, the more your computer can do at the same time. The latest software uses up lots of RAM – Windows Vista Basic operating system requires 512MB to run and Windows Vista Premium needs at least 1GB – and as technology advances you're likely to need even more. It's a good idea to buy 1GB or more, and make sure you can add more later. RAM may be specified with DDR or DDR2 in front of the figure – DDR2 (Double Data Rate 2) is superior.

Hard drive This is where your computer stores information. Size and speed are what matters when it comes to the hard drive. Most laptops have from 80GB to 200GB hard drive space, which is enough to store large programs and big files, but 250GB drives are now available and 320GB drives have been announced. Some laptops can even include two or more hard drives. Multimedia users who want to store large music, image or video files might need even more space, so it could be worth investing in an external hard drive. While hard drive size is important, don't forget speed – look for 5400 revolutions per minute (rpm), or preferably 7200rpm. Faster is better.

Graphics or video card Choosing a laptop with a good graphics or video card is one of the most important decisions you can make because only a few laptops have dedicated video cards, and not many can have their cards upgraded. Buy the best video card you can afford.

There are two main types:

- **Integrated graphics chips** Most laptops have integrated graphics, so they share their video memory (RAM) with the processor. This can seriously reduce video performance when the computer is under heavy load and give slow, chunky graphics. However, if you don't use the laptop for graphics-intensive tasks such as games, photo editing or video editing, a strong integrated graphics card should be fine.
- **Dedicated graphics cards** Laptops with these have special video memory which is used to process video only; they don't share with the main system RAM. With more resources specifically for processing video, they give faster, better graphics. Gamers and multimedia users especially should look for a dedicated graphics card with at least 256MB of video RAM.

Disc drives Most laptops have optical multidrives capable of playing and recording both CDs and DVDs. Many also have dual-layer DVD writers capable of recording up to 8.5GB on a dual-layer DVD. The latest machines have Blu-ray drives, the new high-definition format used for DVD movies and data storage. Blu-ray discs can hold 25GB or 50GB of data.

Screen There's a trade-off between the screen size and portability of a laptop. Ultra-compact laptops with a screen less than 11 inches (measured diagonally) are far more portable than bulky 17-inch widescreen models. But big, widescreen models are better for graphics, gaming and DVD viewing. Most screens are between 13 inches and 15.4 inches.

The resolution of an XGA (1024 x 768) screen is considered the starting point – most websites and programs are designed to display at this resolution. However, anything above this gives you more versatility.

Many advertisements state the screen size followed by abbreviations that tell you about the screen resolution – the number of pixels. This is what they mean.

Standard resolution (4:3 aspect ratio, width to height)

- **VGA** – 640 x 480 pixels
- **SVGA** – 800 x 600 pixels
- **XGA** – 1024 x 768 pixels (standard laptop resolution)
- **SXGA** – 1280 x 1024 pixels
- **SXGA+** – 1400 x 1050 pixels
- **UXGA** – 1600 x 1200 pixels.

Widescreen resolution (16:9 aspect ratio, W:H)

- **W-XGA** – 1366 x 768 pixels (standard widescreen laptop resolution)
- **WSXGA+** – 1680 x 1050 pixels
- **W-UXGA** – 1920 x 1200 pixels.

For more computer and technology content, including regular laptop tests, subscribe to *CHOICE Computer* by heading to choice.com.au and clicking on Memberships. ■



nutshell

► Australia now has its first independent assessment of carbon offset accreditation schemes and retailers.

► When you buy offsets, they count towards our legal obligation to reduce emissions under the Kyoto agreement – you're paying for emissions reductions that would have happened anyway. The federal government should change this fast.

methane energy

trees
forests

waste

Carbon offset schemes compared

Of the multitude of carbon offset retailers and accreditation schemes now on the market how do you know which ones to trust and which ones are just selling hot air?

Carbon offsets are sold as a way for consumers and businesses to reduce their environmental impact. When you buy an offset, you're paying to support projects that remove greenhouse gases (GHGs) such as carbon dioxide from the atmosphere, or stop them getting there in the first place. When too many GHGs build up in the atmosphere, the result is climate change.

A year ago there were about 20 Australian companies selling offsets to consumers; now there's close to 60. But the market is mostly unregulated and parts of it have been likened to the wild west. The Australian Competition & Consumer Commission (ACCC) recently raised concerns that "consumers may be facing misleading and deceptive conduct associated with this emerging market". A 2007 University of Sydney report found that the term "carbon neutral" is being exploited for PR and financial purposes. The concern is that well-intentioned consumers, trying to do the right thing, are being taken for a ride. Carbon offsetting can work, but the market is susceptible to consumer rip-offs.

So what's the best way to offset your carbon emissions? CHOICE joined with the Institute for Sustainable Futures (ISF) at the University of Technology, Sydney, and the Total Environment Centre (TEC) to form the Carbon Offset Watch and find out. We tell you where you can find offsets that are likely to result in real greenhouse gas emission reductions – if the key changes we're asking for are made by the federal government.

What are carbon offsets?

Carbon offsetting is where consumers pay to reduce or remove greenhouse gas emissions from the atmosphere. This is to counteract or compensate for pollution they've caused. In Australia, buying offsets is voluntary for consumers and businesses. This carbon market works through companies setting up or financing projects that reduce greenhouse emissions. When emissions are reduced, carbon offset credits or certificates are created. Consumers can buy these credits or certificates from retailers, usually through a website. One tonne of carbon offset can cost from \$6 to \$52.

Five most common offset types

These are the main types of offset projects in Australia and overseas, often in developing countries.

Renewable energy Clean energy is generated from sources such as water, wind and sun, so emissions from dirty coal-based energy production are avoided.

Trees/forestry projects Trees suck up, or sequester, carbon from the atmosphere and store it. For the

DODGY CALCULATIONS

We checked the emissions calculated by retailers' websites for one return flight from Sydney to Melbourne, and Sydney to London. There's no consensus for the most accurate way to estimate customer carbon emissions; the results were compared with two benchmark calculators to illustrate the range. Retailers' calculators differed from the benchmarks by up to 80%. Most underestimate, perhaps because they only take fuel use into account, not the full lifecycle emissions involved with the plane, such as its manufacture and ongoing repairs.

The concern is that well-intentioned consumers, trying to do the right thing by offsetting their carbon emissions, are being taken for a ride.

purposes of carbon offsets, projects are set up to plant new trees that remove and store atmospheric carbon, or to avoid deforestation that stops existing stores of carbon from being released into the atmosphere.

Energy efficiency projects Perhaps the most effective way to reduce emissions is to use less energy, and use it more efficiently. For carbon offsets, a company might set up projects that increase energy efficiency, such as installing energy-efficient light bulbs for free in homes, while selling credits for the resulting emissions reduction.

Methane flaring Waste that decomposes in landfills and agricultural processes creates methane gas. Capturing and burning this gas enables the generation of energy and prevents methane escaping into the atmosphere, where it would produce 21 times more global warming than the same amount of carbon dioxide.

Waste diversion Instead of waste going to landfill, it can be used for other purposes, preventing the release of methane. For example, organic waste can be processed and used for compost, without releasing methane.

Offsets should be 'additional'

Perhaps the most important attribute of any carbon offset you purchase is that it's additional – that is, the GHG reduction won't happen if you don't buy the offset. Otherwise there's no real reduction in emissions and the money you spend won't make a real difference.

At present, all carbon offsets created from projects in Australia are simply counted towards our legal obligation to reduce emissions under the Kyoto agreement. You're paying for emission reductions that would have happened anyway. Effectively, individuals and businesses that buy voluntary offsets are subsidising those who don't.

CHOICE, ISF and TEC want the federal government to prevent this double counting as soon as possible, by simply amending the accounting for carbon offsets, so that offsets consumers and businesses buy voluntarily are additional to Australia's Kyoto obligations. The changes should apply retrospectively, so any offsets sold since Australia ratified Kyoto are not counted towards our mandatory GHG reductions.

How Carbon Offset Watch helps you

A company says it will offset emissions and gladly take your money, but how do you know the emissions really will be offset?

Start by checking that the offsets the company is selling have been accredited by an independent standards scheme. However, there are many schemes in the market, and those in Australia are detailed in *Accreditation standards* on page 34. Some are government schemes, others come from for-profit companies, non-profit NGOs and organisations with charitable status, both in Australia and overseas.

Our government standards aren't necessarily the best – even offsets accredited under federal and state government schemes are currently not additional and fall short of best practice on other grounds as well. Nevertheless, offsets independently accredited by a government or other scheme are still a much better bet than offsets that have no third-party accreditation.

This is where Carbon Offset (CO) Watch comes in. We've ranked retailers by their offsets and accreditation schemes, to help you choose where to buy carbon offsets.

How retailers were scored

CO Watch awarded points in the following categories.

Accreditation or certification scheme The biggest factor (73%) in determining retailers' scores was the accreditation or certification scheme with which their offsets comply. CO Watch evaluated the schemes, taking into account:

- How offset projects are validated and approved (19%).
- Verification and assurance that the offset can't be double-sold; it should be retired from the market or transferred into your name when you buy it (9%).
- Methodologies used to calculate emissions and offsets (7.5%) – see *Dodgy calculations*, above.
- If the emission reduction would have happened if you hadn't bought the offset – that is, the emission reduction or offset is truly additional (7.5%).
- Independent verification that the GHG reductions happen (7.5%).
- Independence of the accreditation scheme from the offset retailer (7.5%).
- Publicly accessible registry of offsets (7.5%).
- Timing of emissions reductions (7.5%). Immediate carbon reductions are best.
- Permanence (maximum 7.5% penalty). The offset must be permanent and irreversible. Tree-planting schemes were penalised as there is uncertainty about the permanence of carbon reductions from trees, which could be destroyed or die, releasing the stored carbon back into the atmosphere. >

CARBON OFFSET OFFERS

Retailer (in order of Carbon Offset Watch ranking)	Accreditation scheme*	Price (per tonne of carbon)*	Main offset types*
OUTSTANDING			
Climate Friendly	CDM, GreenPower, GS, VCS, VER+	\$40 (GS), \$25 (VCS)	RE
Cleaner Climate (A)	CDM, VCS	\$25	EE, M, RE
Climate Positive (B)	GF, GGAS, VCS, RECs	\$25	M, RE
Southern Metropolitan Regional Council (B)	GF	na	M
Carbon Reduction Institute	GF, VER+	\$18	EE, RE
GOOD			
Fieldforce Services	GF, GGAS	\$8.75 to \$20	EE
Neco	GGAS, RECs	\$15 to \$19	EE, F, R
Coolplanet	CDM, GF, GGAS, VER+, RECs	\$14 to \$20	EE, M, RE
Australian CO2 Exchange trading as Ark Climate	GGAS, RECs, VCS	\$9 to \$52	F, RE
Carbon Planet (A) (B) (C) (D)	CDM, GF, GS, GGAS, RECs, VER+	\$25	EE, F, RE
Green Pass Australia	GGAS	\$15 to \$20	M
Low Energy Supplies and Services (LESS) (B)	GF, GGAS	\$6 to \$20	EE
Greenpig (C)	GF, GGAS	\$18	M
AGL Energy	GF, GGAS	\$9 to \$11.50	M
Enviro Friendly Products (B)	GGAS	\$19.95	EE, F
Origin Energy Limited (B)	GS, RECs, VCS, VER+, Origin accredited offsets (verified by a third party)	\$9 to \$25	EE, F, M, RE
Landcare CarbonSMART	GGAS	\$25	F
ADEQUATE			
CO2 Australia	GF, GGAS	\$16	F
COzero (D)	CDM, VCS	\$15.95	RE
Global Carbon Exchange (B) (E)	CDM, GF, GGAS, VCS	\$25	EE, F, RE

USING THE TABLE

Retailers are ranked based on the offsets they sold during the six months to April 2008.

- Outstanding** Scored well in most categories and the company sells a high proportion of offsets that are accredited against high-scoring standards, such as the Clean Development Mechanism, Gold Standard, VCS and Greenhouse Friendly. These retailers also sold a high proportion of offsets from projects that change or prevent the underlying activities that cause GHGs, such as energy efficiency, renewable energy and diverting waste from landfill. There's a very high likelihood that purchased offsets will deliver real additional greenhouse gas reductions, assuming the changes we want to national regulations are made.
- Good** Scored well in most categories, but in the assessment period sold a proportion of offsets that are accredited under lower-scoring schemes and standards (GGAS and MRET). High likelihood that purchased offsets will deliver real additional greenhouse gas reductions.
- Adequate** Retailers in this category scored well in most categories, but during the assessment period sold a high proportion of offsets that are accredited under lower-scoring standards, such as GGAS and MRET, and/or sold a high proportion of offsets that don't prevent the underlying activities that cause GHG emissions, such as tree-planting offsets.

Accreditation schemes

- CDM Clean Development Mechanism.
- GF Greenhouse Friendly.
- GGAS Greenhouse Gas Abatement Scheme.
- GS Gold Standard.
- RECs Renewable Energy Certificates.
- VCS Voluntary Carbon Standard.
- VER+ Verified Emission Reductions.

Offset types

- EE Energy efficiency, including demand-side abatement.
- F Forestry.
- M Methane capture.
- RE Renewable energy.

Prices fluctuate and often depend on the volume and type of offsets bought. CHOICE asked retailers to confirm their prices in late August 2008.

na Price not available.

TABLE NOTES

Source: Rankings by Carbon Offset Watch based on offsets available in the six months to April 2008.

*Other information, including the accreditation schemes, was confirmed with the retailers by CHOICE in August / September 2008 and may be different from the information used for Carbon Offset Watch rankings.

(A) The company can supply Gold Standard, but says it's usually too expensive for voluntary offsets.

(B) These companies achieved the same score as the company immediately above them in the table.

(C) VERs are available upon request, including offsets from EE, M and RE.

(D) The company also sells GreenPower, we only give the price for other carbon offsets.

(E) Minimum purchase is five tonnes.

Project locations*	Organisation type*	Website
Australia, China, India, New Zealand, Turkey	For profit	climatefriendly.com
China, India	For profit	cleanerclimate.com.au
Australia, China	Not for profit	climatepositive.org
Australia	Local government authority	smrc.com.au
Various, including Australia, New Zealand	For profit	noco2.com.au
Australia	For profit	fieldforce.net.au
Various, including Australia	For profit	neco.com.au
Various, including Australia, Brazil, North America, Russia	For profit	coolplanet.com.au
Various, including Australia	For profit	arkclimate.com.au
Various, including Australia, New Zealand	For profit	carbonplanet.com.au
Australia	For profit	greenpass.com.au
Australia	For profit	lowenergy.com.au
Australia	For profit	greenpig.com.au
Australia	For profit	agl.com.au
Australia	For profit	enviro-friendly.com
Various, including Australia	For profit	originenergy.com.au
Various, including Australia	Not for profit	carbonsmart.com.au
Australia	For profit	co2australia.com.au
China	For profit	cozero.com.au
Australia and various developing countries	For profit	globalcarbonexchange.com

ABOUT CARBON OFFSET WATCH

Carbon Offset (CO) Watch is a joint project between CHOICE, the Institute for Sustainable Futures at the University of Technology, Sydney, and the Total Environment Centre. It aims to provide consumers with independent information to help buying decisions and encourage the carbon offset industry to improve its standards and offers.

The detailed CO Watch survey was sent to 57 providers and only 20 companies [35%] responded. CO Watch is unable to recommend the non-respondents due to a lack of information. Additional research by CHOICE, separate from the Carbon Offset Watch assessment, found that some of the non-respondents sell offsets that aren't accredited. See the box, right, for more information on these providers.

CHOICE thanks the authors of Carbon Offset Watch, Alison Atherton and Chris Riedy of the Institute for Sustainable Futures. The full report and ranking methodology is available at carbonoffsetwatch.org.au.



UNACCREDITED OFFSETS

Some offset providers that didn't complete the Carbon Offset Watch survey sell offsets that aren't accredited or certified by an independent scheme. Therefore, if you want to offset carbon emissions, they're not recommended. Without third-party accreditation and certification, there isn't enough evidence or independent verification that your money will be used to deliver real additional greenhouse gas reductions.

Many of the companies that sell unaccredited offsets sell tree-planting or forestry offsets, ranging in price from \$12 to \$24 per tonne of CO₂. While planting trees has environmental benefits other than sequestering carbon, such as contributing to biodiversity in some cases, if you want to help combat climate change, CO Watch considers tree-planting projects less beneficial in the long term and riskier than renewable energy, energy efficiency and the prevention of waste going to landfill (see *Project type*, page 34).

Some of the companies outside an accreditation scheme at the moment are:

● **CANOPY**, which has applied for accreditation of its offsets under Greenhouse Friendly. It can also sell other companies' Greenhouse Friendly accredited offsets.

● **CARBON CONSCIOUS**, which lodged its application for Greenhouse Friendly accredited offsets in July 2008 and has yet to sell any carbon offsets to consumers.

● **CARBON NEUTRAL** [Australia]. Donations are tax deductible, as the organisation has not-for-profit charitable status. It says each \$3 donation results in one tree being planted. Accredited offsets [VERs+] can also be purchased from the company.

● **ELEMENTREE INC.** Another registered charity where payments for offsets are considered tax-deductible donations. However, no offsets have been available since 2007. They'll be available again if and/or when offsets from a related company, Elementree Ltd, achieve Greenhouse Friendly certification.

● **GREENHOUSE BALANCED.** It says Greenhouse Friendly accreditation would cost between \$50,000 and \$100,000, which would be passed on to consumers in higher offset prices. Greenhouse Balanced calls its offsets "ecological credits", but its partner, Bendigo Bank, sells them as "carbon offsets".

When shopping for carbon offsets, check that the retailer has been accredited by a reputable scheme.

< **Retailer's service** (19.5%) Whether retailers encourage customers to reduce their emissions before buying offsets, provide sufficient information and accurately estimate the customer's carbon footprint.

Project type (7.5%) The contribution to long-term sustainability of the type of projects used for offsets was assessed. Points were awarded to projects that change or prevent the underlying activities that create GHGs. Energy efficiency, renewable energy and the diversion of waste from landfill were awarded points. Projects that prevent deforestation would have received points too, but no Carbon Offset Watch participants sold that type of offset. Methane flaring, afforestation and reforestation projects were not awarded points.

The table on the previous page shows the results. For a detailed explanation of how the schemes were ranked, go to carbonoffsetwatch.org.au

Accreditation standards

The carbon offset world is awash with confusing jargon and acronyms, so we've provided a brief description of each accreditation standard, showing its CO Watch score.

100%

Clean Development Mechanism (CDM)

A standard administered by the United Nations Framework Convention on Climate Change. It allows accredited projects to generate credits that can be sold to meet obligations under the Kyoto Protocol – for example, developed countries can meet their Kyoto targets by financing projects that reduce emissions in developing countries. But these offsets are also sold in the voluntary market to consumers.

100%

The Gold Standard Developed by environmental group WWF with other NGOs, governments and industry groups, it focuses on energy efficiency and renewable energy offsets, excluding forestry and land-use projects.

95%

Greenhouse Friendly The Australian government scheme for voluntary carbon offsets, administered by the federal Department of Climate Change.

95%

VER+ A standard that focuses on greenhouse gas reductions, created by a German company, TÜV SÜD.

95%

Voluntary Carbon Standard (VCS) Founded by not-for-profit organisation The Climate Group, the International Emissions Trading Association (IETA) and the World Business Council for Sustainable Development (WBCSD). Credits created under VCS are traded in the voluntary market as Voluntary Carbon Units (VCUs).

95%

Greenhouse Gas Abatement Scheme (GGAS)

A mandatory government scheme in ACT and NSW which aims to reduce the emissions from electricity generation and use. The resulting carbon abatement credits can be sold as offsets on the voluntary market.



WHAT YOU CAN DO TO OFFSET YOUR GHG EMISSIONS

- Before buying offsets **reduce your GHG emissions** – using less energy at home is a start.
- Only buy offsets from a retailer that provides **detailed information** about the products, services and projects it uses to generate offsets.
- Choose a retailer that helps you **estimate your carbon footprint** and explains how the footprint is calculated.
- Choose offsets that are **independently accredited** by a recognised scheme. CO Watch considers The Gold Standard and Clean Development Mechanism to be the best indicators of high-quality offsets.
- Offsets from projects that change or **prevent the underlying activities that create GHGs**, such as energy efficiency, renewable energy, avoided deforestation and diverted waste from landfill, are better ways to combat climate change in the long term. Others, such as tree-planting schemes, aren't as good for carbon offsetting but can have separate environmental benefits, such as contributing to biodiversity.
- Get documentary evidence of your **offset purchase**. Ensure the retailer **guarantees to retire the offset** from the market on your behalf, or transfers ownership of the offset to you so you can retire it yourself and the offset you bought can't be sold again.

70%

Mandatory Renewable Energy Target (MRET)

Certificates MRET is the Australian government's target for renewable energy generation. In 2007 the government committed to generating 20% of Australia's energy from renewable sources by the year 2020. Plans to meet the new target are currently the subject of public consultation. Electricity retailers must contribute to this target by supporting renewable energy through the purchase of Renewable Energy Certificates (RECs), which are created when clean energy is produced. Households with solar photovoltaic (PV) and solar hot-water systems can also create and sell the RECs they get when they buy these systems – see the August issue of CHOICE or go to choice.com.au for more information. ■

767%

is the range of prices consumers are charged for carbon offsets. The price per tonne of carbon ranges from \$6 to \$52.

Compare the squares

Finding a toilet paper that does its job is no simple matter – we ask our dedicated Home Testers to get to the bottom of it.

nutshell

► The pricier toilet papers generally scored higher. Ply is a measure of thickness and is something to look for if that's important to you.

► Our Home Testers didn't love most of the brands made from recycled paper, but one scored quite well and is our Green Buy.

Toilet paper is big business, and for a product that fulfils a simple function, the amount of technology and marketing is surprisingly complex. With an annual turnover of \$720m and fierce competition between brands, it seems everyone has an opinion on what makes a perfect roll. To distinguish their products, manufacturers use "softness" and "comfort" in ads that feature puppies, babies and anything else that evokes gentleness without actually getting into the business of what they're selling.

Going green

According to a 2005 NSW government study, 400kg of greenhouse gas emissions can be saved for every tonne of toilet paper made from recycled material. This is because virgin fibre requires more energy and water for harvesting raw materials, pulping and processing. By using toilet paper made with recycled content, we can reduce the demand for native forest logging. Only 5% of the toilet paper we flush away in Australia is made from recycled paper – the bulk is made from virgin fibre.

Traditionally, consumers have shied away from recycled toilet paper because of its coarser texture. But new recycled products are softer and are now competitive with the premium market. One recycled product, ENVIROSOFT, scored high enough in our trial to be in the *What to buy* list and is our Green Buy.

Watch out for greenwash – CHOICE found the toilet paper industry thrives on green claims (see *Supermarket Green Watch*, June 2008), with the average product containing five claims and some as many as eight. Look for paper with high recycled content – post-consumer is preferable to pre-consumer recycled sources.

Did you know?

THE FACTS ABOUT BLEACHING

- While a product may state that it's chlorine-free, read the fine print. It could be "elemental chlorine free" (ECF), which is better for the environment than regular chlorine bleaching but still not ideal because chlorine is involved.
- Where possible, choose a toilet paper that's unbleached. Otherwise, look for products that are oxygen-bleached or marked "totally chlorine free".

ENVIROSOFT 100% RECYCLED (3 ply)

Trialist comments

"While it could have been softer, it was stronger and absorbent."

"The paper was very thick, which is quite luxurious but I would prefer a bit thinner."



Toilet paper on trial

It's impossible for shoppers to be entirely free from commercial influences, so CHOICE decided to find out which brands consumers prefer when they're stripped of their slogans and packages. More than 300 Home Testers were enlisted to pick the best of 27 widely available brands. The table on page 36 lists the brands in rank order. Trialists didn't know which brand they were testing or the price, but they mostly gave a higher overall score to the more expensive and higher ply products – the premium Quilton products dominate our *What to buy* list. >

HOW WE TESTED

Trialists We sent 318 CHOICE Home Testers five rolls of toilet paper with the packaging removed.

Toilet paper We chose 27 widely available toilet papers for the trial. For consistency, only the white version of each was tested, except BLACK AND GOLD Printed, which had no white version available. We didn't include one-ply products.

User trial Trialists tested one type of toilet paper at a time, using each for three days or until the roll ran out. They then filled in a survey rating it for factors such as softness, absorbency, strength, thickness, fragrance, appearance and ease of use. They gave each product an overall score. The trialists also told us about their buying habits and preferences. The most important factors emerged as strength, absorbency, thickness and softness, in that order.

MISSING BRANDS

At the time of our research, one of the biggest manufacturers of recycled toilet paper, Merino, went into receivership. As a result, brands such as Safe and Bouquets weren't included in the trial.

What to buy

QUILTON GOLD (4 ply)

Trialist comments

"All that a toilet paper should be."

"Very thick – I

wondered if it could be considered wasteful of our resources."



QUILTON (3 ply)

Trialist comments

"It lasted longest in a busy house and at the same time was soft and smooth. I liked it."

"Very soft, and the fragrance was not too strong."



CONFIDENCE (3 ply)

Trialist comments

"Being fussy ... this one met all my expectations, apart from difficulty in starting the roll."

"It tore evenly all the time and left no 'toilet paper dust' floating around."



QUILTON UNSCENTED (3 ply)

Trialist comments

"I buy recycled paper, but this would be my choice if that wasn't available."

"Very surprising – looks so thin, but very strong."



QUILTON DOUBLE LENGTH (3 ply)

Trialist comments

"Good quality. You don't need much, which is a cost saver, and there is a lot on the roll."

"Less changing of rolls was involved, but it was very noticeable in the bathroom and stuck out from the wall a fair way. Fabulous paper, though."



PRODUCT		SCORES					COST
Brand / type (in rank order; number in brackets is the number of people who tried it)	Ply	Overall score (%)	Softness score (%)	Absorbency score (%)	Strength score (%)	Price (\$ per 250 sheets)	
Quilton Gold (58)	4	86	91	89	93	1.11	
Quilton (55)	3	84	85	84	85	0.78	
Confidence (Aldi) (56)	3	79	80	83	82	0.78	
Quilton Unscented (61)	3	79	78	75	79	0.82	
Quilton Double Length (58)	3	78	76	78	89	0.78	
You'll Love Coles (57)	3	75	78	75	79	0.69	
Plush (60)	3	74	71	81	87	0.80	
Sorbent (60)	2	74	75	73	75	1.09	
Kleenex Cottonelle Double Length (61)	ns	73	82	73	65	0.88	
Kleenex Cottonelle (64)	ns	73	82	76	66	1.10	
Kleenex Cottonelle Hypo-allergenic Unscented (58)	ns	71	79	78	69	1.10	
Woolworths Select Hypo-allergenic Double Length (62)	4	70	69	72	81	0.78	
Envirosoft 100% Recycled (51) (A)	3	68	56	68	77	0.71	
Sorbent Hypo-allergenic (58)	2	68	72	71	71	0.99	
Confidence (Aldi) (59)	2	58	63	57	53	0.46	
IGA Eden (55)	2	55	57	55	53	0.80	
Black and Gold Printed (53)	2	54	59	55	54	0.57	
Purex (53)	2	53	59	59	56	0.59	
WonderSoft (56)	3	53	45	66	69	0.80	
Dandy Value (52)	2	49	51	50	55	0.32	
You'll Love Coles (56)	2	49	39	56	60	0.50	
WonderSoft (60)	2	48	43	54	58	0.61	
Naturelle 100% Recycled (56) (A)	2	41	43	50	44	0.49	
Dandy EnviroFriend (62) (A)	2	39	44	48	40	0.45	
TreeFree (54) (A)	2	39	44	46	40	0.47	
Home Brand (65)	2	37	55	37	30	0.50	
Coles Smart Buy (56)	2	36	36	36	37	0.34	

RECYCLED TOILET PAPER		SCORES					COST	USING THE TABLE
Brand / type (in rank order; number in brackets is the number of people who tried it)	Ply	Overall score (%)	Softness score (%)	Absorbency score (%)	Strength score (%)	Price (\$ per 250 sheets)		Overall score This is given by the Home Testers; it's not an amalgamation of the other scores. Price What we paid in February/March 2008.
Envirosoft 100% Recycled (51)	3	68	56	68	77	0.71		
Naturelle 100% Recycled (56)	2	41	43	50	44	0.49		
Dandy EnviroFriend (62)	2	39	44	48	40	0.45		
Treefree (54)	2	39	44	46	40	0.47		

TABLE NOTES

(A) Recycled product.
ns Not stated.

On test

Home entertainment,
whitegoods, household
and personal appliances
— they're all tested here.



Inside

44 Health grills



47 Digital SLRs



52 Lawnmowers



Plus

57 Evaporative air coolers

60 Car GPS

For more product tests go to www.choice.com.au

CHOICE has its own testing laboratories, where experienced technical staff put products through their paces. We use test methods from Australian standards, as well as developing our own in order to match the way consumers use a product in reality. We buy the products we test, to maintain our independence from manufacturers and so that we know what you're faced with in the shops. Our recommendations are based on a product's quality and performance, with no hidden bias.



CHOICE Best Buy CHOICE calls a product a Best Buy if it delivers high quality at a comparatively low price. Not every test report has Best Buys.



CHOICE Green Buy CHOICE calls a product a Green Buy if it delivers both good quality and environmental performance at a comparatively low price. Not every test report has Green Buys.



CHOICE Video When you see the CHOICE Video icon, you can find more information about that story at choice.com.au.

A chilly equation

How can you make your refrigerator work for you?

Efficiency is the key and we help you unlock the mystery.

nutshell

► Refrigerators with French doors are becoming popular, and two made into the *What to buy* list.
► Most modern fridges are very energy efficient, but the way you use them can help make them even better.

We tested 12 new refrigerators and added five to the table of previously tested models (page 42) and seven to the *Missing models* on page 41. One of them, the ELECTROLUX ESE6077SA side-by-side model, was entered in the Australian International Design Awards 2008. It may have great design, but it didn't do its job very well, achieving a comparatively low overall score of 61% and a poor temperature score of just 45%.

Three of the newly tested fridges are in the increasingly popular French-door style, where the fresh food compartment has two doors opening from the centre and the freezer is below with one or two doors. Two of these fridges were good enough to make it into the *What to buy* list, below.

One side of the efficiency equation

The temperature scores for the fridges in the table will show you the best in each size range. Temperature

control is very important but there's more to choosing a refrigerator than just looking at the performance scores. The number of people who will be using it, the amount of shopping you do and the types of food you store all affect what kind of fridge is best for you – apart from it having to fit into the space you have available.

The size of your refrigerator isn't dependent only on the size of your family; a larger fridge will allow you to shop less often, saving on costs such as petrol to drive to the shops, whereas a smaller fridge should use less energy, but that energy efficiency will be eroded if its small size means you have to restock it with food to be cooled every couple of days.

Most new refrigerators are very energy efficient. If you already have a second fridge or are thinking of keeping your old one when you replace it, don't forget that old fridges are much less efficient. Turning it off if you aren't using it will save money on your energy bill. >

What to buy \$

This list includes the best fridges in each size range. Best Buys are good performers that are comparatively cheap both to buy and run. Where possible we've included both top (T) and bottom (B) freezers in each size range. The products in the *What to buy* list and the table change from test to test, as new products are released and tested, and older models go off the market.

LESS THAN 300L

WHIRLPOOL WR127SW (T) **BEST BUY** \$759

300-375L

FISHER & PAYKEL Elegance E372B (B) **BEST BUY** \$1449

FISHER & PAYKEL Tasman E331T (T) **BEST BUY** \$1019

NEW WESTINGHOUSE WTB3400WA (T) **BEST BUY** \$949

376-450L

FISHER & PAYKEL Tasman E381T (T) **BEST BUY** \$1179

FISHER & PAYKEL Elegance E440T (T) **BEST BUY** \$1641

FISHER & PAYKEL Tasman E442B (B) **BEST BUY** \$1705

451-525L

FISHER & PAYKEL Elegance E521T (T) \$1907

ELECTROLUX EBM5107SA (B) **BEST BUY** \$2639

ELECTROLUX EBM5100WB (B) **BEST BUY** \$1749

NEW FISHER & PAYKEL E522BRXFDU (B) **BEST BUY** \$2829

MORE THAN 525L, INCLUDING FRENCH-DOOR MODELS

FISHER & PAYKEL RF610A (FD) \$3699

NEW ELECTROLUX EDE6007SA-NAU (FD) **BEST BUY** \$3279

SAMSUNG Cool Tech Plus SRL550DW (B) **BEST BUY** \$1899

NEW SHARP SJ-F60PC (FD) **BEST BUY** \$2749

GE GBU20KBRWW (B) **BEST BUY** \$3899

SIDE-BY-SIDE

WESTINGHOUSE WSE6100WA **BEST BUY** \$1899

ELECTROLUX ESE6108WA **BEST BUY** \$2109

B Freezer on bottom.

T Freezer on top.

FD French doors.

Profiles

Newly tested models in the *What to buy* list are profiled here. For profiles of the other models in the list see *CHOICE*, May 2008, November 2007, May 2007, November 2006, May 2006, November 2005, May 2005, November 2004 and May 2003. You'll also find them in the appropriate month under 'Fridges' in the index at choiceextra.com.au.

300-375L

71% WESTINGHOUSE WTB3400WA

PRICE \$349

Freezer on top

GOOD POINTS

- The controls allow a good range of temperature combinations between the two compartments.
- Very good at maintaining steady temperatures as the compressor stops and starts.
- Very versatile storage.
- Good chiller compartment.
- Available with right-hand doors, which can be reversed with a kit.
- Moderately quiet compared with other fridges.

BAD POINTS

- Scored only 54% for fresh food cooling speed.
- Conventional controls mean that setting the temperatures tends to be trial and error, particularly as the controls are very sensitive and not easy to use.
- Freezer and fresh food temperatures are very warm on mid settings.
- The range of temperature settings is slightly limited.
- The freezer can get much too warm with ambient change in winter, unless the controls are reset.
- There is some temperature variation in areas of the fresh food compartment.
- The door bottle shelf is a little warm compared with the compartment average.



More than 525L, French door

75% ELECTROLUX EQE6007SA-NAU

PRICE \$3279

Freezer on the bottom

GOOD POINTS

- Electronic controls display the selected temperature in °C (but not very accurately) and act relatively independently of each other, making adjustments very simple.
- The controls allow a good range of temperature combinations between the two compartments.
- Handles ambient change well.
- Good crisper humidity.
- Moderately quiet relative to other fridges.

BAD POINTS

- Scored only 58% for fresh food cooling speed.
- The door bottle shelf is a little warm compared with the compartment average.
- Chiller compartment is too warm.



451-525L

75% FISHER & PAYKEL E522BRXFDU

PRICE \$2829

Freezer on the bottom

GOOD POINTS

- Very fast fresh food cooling.
- The electronic controls act relatively independently of each other, making adjustments simpler.
- The controls allow a good range of temperature combinations between the two compartments.
- Handles ambient change well.
- Easy to use.
- Quiet relative to other fridges.
- Shelves can be removed and replaced with the doors open at 90° or more only.
- Internal ice dispenser means more room for storage and less energy used.

BAD POINTS

- The fresh food temperature is very cold on the mid setting.
- The controls don't allow very fine temperature adjustment.
- There are moderate temperature fluctuations as the compressor stops and starts.
- No chiller compartment.



More than 525L, French door

73% SHARP SJF60PC

PRICE \$2749

Freezer on the bottom

GOOD POINTS

- Electronic controls display the selected temperature in °C (but not very accurately) and act relatively independently of each other, making adjustments very simple.
- Controls allow a very good range of temperature combinations between the two compartments.
- Handles ambient change extremely well.
- Good crisper humidity.
- Moderately quiet relative to other fridges.

BAD POINTS

- Scored only 49% for fresh food cooling speed.
- Moderate temperature fluctuations as the compressor stops and starts.
- No chiller compartment.



There are things you can do to make sure your refrigerator is working efficiently.

< The other side of efficiency

When buying a new fridge, check the installation instructions, as an incorrectly installed fridge can cost you money. It needs clearance around it to dissipate the heat it produces on the outside. Make sure it isn't installed in direct sunlight or near heat sources, such as the oven.

Storing the right foods in the right areas can also improve the efficiency of a fridge. A chiller compartment lets you store highly perishable foods such as meat, chicken and fresh fish at about 3°C cooler than the rest of the fresh food compartment, or about 0°C. See the table (page 42) for which fridges have a chiller.

Normal conditions in the fresh food compartment will dry out fruit and vegetables unless sealed in plastic bags. A good crisper is humid and should keep vegetables fresh, even if you don't keep them in plastic bags.

Other ways to improve efficiency in a fridge revolve around how you use it. The optimal temperature setting for the freezer is -18°C and for the fresh food compartment 3°C. Colder than these settings means you'll use energy unnecessarily and affect food quality, while warmer temperatures mean reduced quality and food safety. Use a thermometer to check the temperatures and bear in mind that you might have to adjust the controls when the season changes.

Store food with space between each item so the cool air can circulate, avoid stacking hard against the compartment walls and don't overload the fridge by putting hot food in before it's cooled, or at least stopped steaming.

Finally, if something seems to be wrong with your refrigerator, get it repaired or replaced as soon as possible to minimise food and energy waste. >

About the rest

Testers noted the following about the other newly tested models, which are in *Missing models*, far right.

LESS THAN 300L

The chiller of the OMEGA TM-246P was much too warm for best food storage, and both it and SAMSUNG SR244NME have controls that are not easy to use. 376-450L

The freezer of the WESTINGHOUSE WTM4200PB can get too warm and the controls aren't easy to use. It also doesn't have a chiller compartment.

SIDE-BY-SIDE AND FRENCH DOOR

- The LG GR-B218STS doors can easily give the impression of being closed when they're not.
- The SAMSUNG SR5540HP and SMEG SR650XA might be worth considering but just weren't as good as the rest.
- Both the ELECTROLUX ESE6077SA and MAYTAG GC2225GEKS have poor basic temperature management.

Did you know?

Breaking the code Model numbers aren't always just a code that seems designed to confuse; in some cases they can tell you a lot about a product.

FISHER & PAYKEL'S ES22BRXFDU model number tells you the following:

- **E** electronic control system
- **522** the approximate capacity in litres
- **B** bottom-mount freezer
- **R** the door is mounted on the right hinge
- **X** the finish is stainless steel
- **FD** it has a flat door rather than curved
- **U** it has an ice and water dispenser.

This is just one example, but once you break the code for some manufacturers it tends to stay the same over all models.

HOW WE TESTED

Temperature performance Our testers checked for an appropriate range of temperatures in the fresh food and freezer compartments at the same time; assessed temperature fluctuations, as even temperatures are an important factor in maintaining food quality; checked how uniform the temperature was throughout each compartment; and measured the effect on refrigerator and freezer temperatures when the external temperature changed, such as from summer to winter.

Energy efficiency This was tested to the Australian/New Zealand Standard. The test also checks the energy label required by law to be displayed on new fridges.

Fresh food cooling speed This tests the cooling strength and ability of the fridge to recognise that cooling was needed in the fresh food compartment.

Crisper freshness The testers measured how well the crisper keeps unwrapped vegetables from being dried out.

Ease of use Testers considered three main areas: storage, loading/unloading and general versatility aspects; ease of cleaning; and the ease of understanding and using the controls to obtain appropriate temperatures in varying external conditions.

HOW RELIABLE DO SUBSCRIBERS RATE THEIR BRAND?

In our 2007 reliability survey, over 6200 members told us about the fridge they had bought in or after 2000. Only 9% had needed repair in the previous 12 months. The graph below shows the results for brands for which we received enough replies to report on (at least 100). The number in brackets is the number of responses. A difference of 8% or more is meaningful.

FRIDGES	%
ALL FRIDGES (6286)	91
WESTINGHOUSE (1806)	93
KELVINATOR/ELECTROLUX (608)	92
LG (456)	92
FISHER & PAYKEL (2072)	91
WHIRLPOOL (272)	88
GE (132)	84
MAYTAG (162)	83

What to look for

FEATURES WORTH HAVING

- **Controls** A single control may seem easier to use, but as it sets both the freezer and the fresh food compartment, you can't adjust one without affecting the other. In most refrigerators with two controls, one is the thermostat and the second is usually a baffle – a flap that directs the cold air to either one or the other compartment. Some **electronic** fridges have relatively independent temperature management, with the compartments controlled separately. Having independent controls increases your chance of getting the right temperature balance between the fridge and freezer. Some even allow you to set the specific temperature in °C, which is ideal if it's accurate as you're not leaving it to trial and error.
- A **dairy compartment** is convenient for keeping butter and hard cheese slightly soft.
- A **chiller** is important if you store meat, fish or poultry (fresh or cooked) to keep it at a safe temperature longer. Its temperature should be about 0°C and ideally it should have a separate temperature control.
- Check that the **shelves** and door shelves are easy to remove and replace, and that the range of shelf positions suits your needs. Can you stand soft-drink or wine bottles in the door shelves and milk bottles in the main compartment? A **split shelf** in the compartment can be handy for this too.
- **Doors and handles** Look for handles that don't have any finger traps and be sure to choose the door opening position that suits your kitchen.

For more on what to look for when buying a fridge, go to choiceextra.com.au and click on any of the articles under 'Fridges' in the index.



Water/ice dispenser Some refrigerators have a water/and or ice dispenser on the outside of the door. The advantage is that the door isn't constantly opened for cold water. However, some ice makers can take up to 30% of your freezer space, so check that you still have enough space in the freezer.



Look for a well-sealed **crisper**, ideally with no obvious gaps between the lid and shelf above, for keeping vegetables fresh. A good crisper means you don't have to store your vegetables in plastic bags.

FOR PEOPLE WITH A DISABILITY

An occupational therapist from the Independent Living Centre, NSW, assessed the newly tested models' suitability for people with certain disabilities. Unfortunately only two of them in the *What to buy* list are recommended.

- The OMEGA TM-246P, ELECTROLUX ESE6077SA, MAYTAG GC2225GEKS, SAMSUNG SR5540HP and SMEG SR650XA are all highly recommended for accessibility for a wheelchair user.
- For people with upper limb dysfunction, the SAMSUNG SR5540HP and the SMEG SR650XA have good accessibility.
- For people with back pain, the ELECTROLUX ESE6077SA, ELECTROLUX EQE6007SA-NAU, SAMSUNG SR5540HP, SHARP SJ-F60PC and SMEG SR650XA are highly recommended.
- For people with vision impairment, the MAYTAG GC2225GEKS is highly recommended because its spacious interior makes food easy to select. Unfortunately it scored only 36% for temperature performance.
- For a person with cognitive impairment, only the WESTINGHOUSE WTM4200PB is highly recommended.

Missing models

CHOICE has now tested so many fridges we can't fit them all into one table. To give you information about the best models, we've dropped from the table some of the models that didn't perform as well, but which are still available in shops. If you see one at a good price and are interested in buying it, check its details under the "Fridges" articles on choiceextra.com.au. The missing models are shown here with their price and overall score.

Less than 300L

- LG GN-2055QA, 68%, \$499
- OMEGA TM-246P, 65%, \$749 (A) **NEW**
- SAMSUNG SR244NME, 63%, \$649 **NEW**
- FISHER & PAYKEL E249T, 54%, \$809

300-375L

- ELECTROLUX ETM3600WB, 67%, \$1059
- WHIRLPOOL 6WMV35NW, 65%, \$1099

376-450L

- WESTINGHOUSE WTM4400WB, 73%, \$1369
- SIMPSON SBM4300W, 70%, \$1299
- ELECTROLUX EBM3800WB, 69%, \$1159
- SIMPSON STM3900WA, 66%, \$1059
- DAEWOO FR-4501W, 62%, \$899
- WHIRLPOOL 6WMV43NW, 61%, \$1239
- LIEBHERR CTNes4613, 55%, \$3699

451-525L

- ELECTROLUX ETM5200WB, 66%, \$1689

More than 525L including French door

- LG GR-B218STS, 66%, 2799 (A) **NEW**

Side-by-side

- SMEG SR650XA, 69%, \$3290 **NEW**
- MAYTAG GZ2626GEKBS, 68%, \$7699
- SAMSUNG SR5540HP, 66%, \$1659 **NEW**
- LG GR-G227TVS, 62%, \$4699
- ELECTROLUX ESE6077SA, 61%, \$3999 **NEW**
- MAYTAG GC2225GEKS, 59%, \$5279 **NEW**

(A) Discontinued but may still be available in some shops.

PRODUCT				PERFORMANCE										FEA
Brand / model (in rank order within groups)	Freezer	Number of Doors	Overall score (%)	Ease of use score (%)	Temperature score (%)	Energy efficiency score (%)	Crisper freshness score (%)	Fresh food cooling speed score (%)	Cooling time (hr:min)	Claimed / measured energy use (kWh / year)	Noise level (dB)	Ice made / held (kg)	Chiller	
LESS THAN 300L														
Whirlpool WRI27SW	Top	2	74	68	75	82	86	58	6:14	400 / 433	43		✓ (D)	
300-375L														
Fisher & Paykel Elegance E372B (A)	Bottom	2	77	72	72	84	95	76	4:14	498 / 482	35			
Fisher & Paykel Tasman E331T (A) (B)	Top	2	76	71	68	91	90	78	4:13	407 / 388	36			
# Westinghouse WTB3400WA	Top	2	71	74	66	86	80	54	6:01	445 / 438	38		✓	
376-450L														
Fisher & Paykel Tasman E381T (A)	Top	2	79	71	77	90	80	81	3:42	433 / 424	35			
Fisher & Paykel Elegance E440T (A) (B)	Top	2	78	76	73	92	73	82	3:33	476 / 437	36			
Fisher & Paykel Tasman E442B (A) (B)	Bottom	2	76	76	72	84	92	68	4:40	583 / 527	36			
Electrolux EBM4307SA	Bottom	2	75	70	78	81	76	61	5:14	565 / 546	36			
Westinghouse WTM4200WB	Top	2	75	73	71	86	80	69	4:39	455 / 477	39			
Electrolux EBM4300WB (A)	Bottom	2	74	70	78	79	79	53	5:42	565 / 570	38			
Fisher & Paykel Elegance E402B (A)	Bottom	2	74	75	72	78	94	59	5:24	528 / 561	35			
Fisher & Paykel Elegance E411T	Top	2	74	74	63	86	80	83	3:29	454 / 478	35			
Samsung SR446NW	Top	2	74	70	73	89	63	66	4:50	472 / 474	38		✓ (D)	
# Westinghouse WTM4200PB	Top	2	74	67	69	90	74	72	4:26	468 / 445	37			
451-525L														
Fisher & Paykel Elegance E521T (A)	Top	2	78	72	76	89	75	82	3:24	508 / 496	35			
Electrolux EBM5107SA	Bottom	2	77	70	80	89	83	58	5:13	589 / 510	36			
Electrolux EBM5100WB (A)	Bottom	2	75	67	77	80	87	62	4:58	589 / 602	39			
# Fisher & Paykel E522BRXFDU	Bottom	2	75	75	70	79	78	83	3:20	636 / 627	34	0.5 / 2.0		
Fisher & Paykel Elegance E522B (A)	Bottom	2	73	75	69	78	78	69	4:29	596 / 642	37			
Westinghouse WTM5200WB	Top	2	73	76	66	83	80	69	4:28	508 / 569	40			
Simpson SBM5100MA (B)	Bottom	2	72	70	71	79	87	60	5:07	589 / 616	37			
Samsung SR502NXA (B)	Top	2	69	69	61	89	53	76	3:56	515 / 503	35		✓ (D)	
MORE THAN 525L INCLUDING FRENCH DOOR														
Fisher & Paykel RF610A	Bottom	3	77	65	78	79	92	78	3:42	695 / 688	37	0.5 / 2.0		
# Electrolux EQE6007SA-NAU	Bottom	4	75	69	77	84	82	58	5:03	765 / 638	37		✓ (D)	
Samsung Cool Tech Plus SRL550DW (A)	Bottom	2	73	72	64	88	74	79	3:39	604 / 576	40		✓	
# Sharp SJ-F60PC	Bottom	4	73	69	74	83	83	49	5:37	765 / 644	37			
GE GBU20KBRWW	Bottom	2	72	71	62	89	84	71	4:12	572 / 555	43			
SIDE-BY-SIDE														
Westinghouse WSE6100WA (A)	LH side	2	77	73	76	79	76	81	3:26	687 / 705	41			
Electrolux ESE6108WA	LH side	2	76	74	76	81	72	73	4:05	676 / 681	39			
Bosch KAN56V10AU	LH side	2	74	71	73	85	74	65	4:37	630 / 636	37			
Whirlpool 6ED2FHXRLL (C)	LH side	2	74	77	72	88	90	39	6:07	614 / 595	41		✓ (D)	
Whirlpool 6GD5SHGXSS	LH side	2	74	77	76	90	85	32	6:27	740 / 639	41	1.5 / 4.5	✓ (D)	
Daewoo FRS-U20ICW	LH side	2	73	71	72	82	69	68	4:25	650 / 665	38		✓ (D)	
Bosch KAN58A40AU	LH side	2	72	73	71	74	77	63	4:47	750 / 758	38	0.5 / 1.5		
Samsung Quatro SRS752QDUS	LH side	4	72	72	66	75	91	75	3:48	866 / 873	35	2.0 / 3.0	✓	

SPECIFICATIONS							COSTS	
Door hinge position	Dimensions (cm, H x W x D)	Claimed total volume (L)	Claimed volume, fresh food (L)	Claimed volume, freezer (L)	Contact		10-year running costs (\$)	Price (\$)
Rev	171 x 56 x 65	268	204	64	www.whirlpool.com.au		650	759
R or L	160 x 64 x 70	373	250	123	www.fp.com.au		723	1449
Rev	143 x 64 x 69	329	232	97	www.fp.com.au		582	1019
Rev (with door kit AREX01WA)	170 x 60 x 64	338	243	95	www.westinghouse.com.au		657	949
Rev	161 x 64 x 70	380	283	97	www.fp.com.au		636	1179
R or L	170 x 69 x 70	447	342	105	www.fp.com.au		656	1641
Rev	170 x 69 x 71	442	307	135	www.fp.com.au		791	1705
R or L	173 x 71 x 71	431	300	131	www.electrolux.com.au		819	2429
R or L	164 x 70 x 71	416	313	103	www.westinghouse.com.au		716	1319
R or L	172 x 71 x 71	431	300	131	www.electrolux.com.au		855	1379
R or L	171 x 64 x 70	403	280	123	www.fp.com.au		842	1642
R or L	170 x 64 x 70	411	314	97	www.fp.com.au		717	1483
R	175 x 72 x 71	447	319	128	www.samsung.com.au		711	1299
R or L	164 x 71 x 71	416	313	103	www.westinghouse.com.au		668	1429
R or L	170 x 80 x 71	517	400	117	www.fp.com.au		744	1907
R or L	173 x 81 x 71	505	349	156	www.electrolux.com.au		765	2639
R or L	172 x 81 x 71	505	349	156	www.electrolux.com.au		903	1749
R	171 x 80 x 70	519	360	159	www.fp.com.au		941	2829
R or L	170 x 80 x 71	519	360	159	www.fp.com.au		963	1875
R or L	172 x 80 x 71	517	396	121	www.westinghouse.com.au		854	1689
R or L	173 x 80 x 71	505	349	156	www.simpson.com.au		924	1589
R	175 x 78 x 73	502	349	153	www.samsung.com.au		755	1399
(E)	178 x 91 x 69	614	433	181	www.fp.com.au		1032	3699
(E)	172 x 90 x 78	600	370	230	www.electrolux.com.au		957	3279
R	180 x 83 x 73	551	361	190	www.samsung.com.au		864	1899
(E)	172 x 90 x 78	602	370	232	www.sharp.net.au		966	2749
Rev	173 x 76 x 83	588	388	200	www.kleenmaid.com.au		833	3899
na	176 x 90 x 71	606	357	249	www.westinghouse.com.au		1058	1899
na	176 x 91 x 71	606	357	249	www.electrolux.com.au		1022	2109
na	180 x 91 x 68	618	377	241	www.boschappliances.com.au		954	1999
na	170 x 84 x 78	640	415	225	www.whirlpool.com.au		893	2369
na	178 x 91 x 79	740	445	295	www.whirlpool.com.au		959	3799
na	180 x 91 x 68	618	377	241	www.daewooelectronics.com.au		998	1699
na	180 x 91 x 69	603	377	226	www.boschappliances.com.au		1137	2999
na	179 x 92 x 86	752	347	293	www.samsung.com.au		1310	5999

USING THE TABLE

Scores The overall score is made up of:

- Ease of use: 20%
- Temperature performance: 40%
- Energy efficiency: 20%
- Fresh food cooling speed: 12%
- Crisper freshness: 8%

Noise level These are comparative measurements. Fridges can sound noticeably louder as the compressor starts and stops and may make unusual noises during automatic defrosting.

Claimed volumes These tell you how much air space the fridge has to cool; this includes space not available for storage. Use the volumes to get an idea of how big the freezer is compared with the fresh food compartment.

10-year running costs These are calculated at a rate of 15 cents per kWh. A 10-year period gives a useful indication of the long-term differences between high and low energy use – and you should be able to expect your fridge to last at least that long.

TABLE NOTES

Newly tested models.

na Not applicable; the doors are side-by-side.

Rev Reversible door.

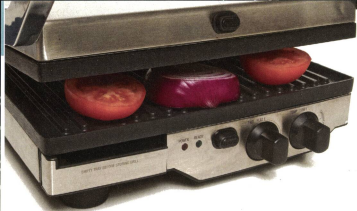
(A) We generally test the basic white version of a model. Fridges with this footnote are available in other styles and finishes. Some can also be built into cabinets with a door kit that matches your kitchen cupboards.

(B) New crisper and/or freezer bins have been added since our test, which may slightly affect their scores.

(C) Discontinued, but may still be available in some shops.

(D) This chiller was too warm in our tests for optimal storage of highly perishable foods.

(E) The fresh food compartment has two French-door-style doors.



Health on the grill

They're marketed as a healthy way to cook, but do you really need one?

nutshell

► While there's no doubt health grills use less fat and oil to cook your food, you can do this easily enough using your existing kitchen equipment.

► Size matters: health grills are bulky, so make sure you get one that's the right size for your family and suits your storage capacity or bench space.

With the recent news that Australia is now one of the world's fattest nations, it's natural that plenty of us are keen to prepare and cook our food in the healthiest way possible. Health grills, which started to appear on the kitchen scene in the '90s, generally make claims to reduce both cooking time and the amount of fat and oil in your food by cooking without oil and allowing any fat generated by the food to drip or run away while it's cooking.

Most models are so-called grill presses with a top plate that heats up as well as the bottom plate, and most claim to cut cooking time by half by allowing both sides of the food to be cooked simultaneously. They can be used to cook meat, seafood and vegetables, and most models can also double as a sandwich press. Many sandwich presses can also cook meat and other foods this way, but they're usually smaller and generally don't have a griddle plate to give a barbecue-style pattern on food. CHOICE tested eight grill-press models priced from \$55 to \$249.

Do you really need one?

Overall the health grills cooked very well and with little to no added oil, thanks to non-stick cooking surfaces. They're certainly a healthy way to cook. But CHOICE's home economist still queried their value: these days you can buy very lean cuts of meat and cook them in a non-stick frying pan (which you probably already own) or on the grill in your oven with hardly any oil to achieve the same healthy result. And they're no substitute for a barbecue, as you don't get the distinctive char-grill flavour from the food being cooked over an open flame.

On the other hand, health grills are a good way to cook if you choose meats that have a high fat content, because the griddle plate drains excess fat into a drip tray.

Most health grills are also large and bulky – and not very pretty. They take up a lot of space on the bench or you'll struggle to get one in and out of a cupboard every time you want to use it. Your frying pan or grill tray is a lot easier to clean – in the sink or dishwasher – than most health grills.

The main advantage of a health grill is that it can reduce your cooking time by cooking both sides of the food simultaneously, but is this enough of an advantage to make it worth buying one? >



WATCH YOUR FINGERS!

- The two GEORGE FOREMAN models and the KAMBROOK have handles that aren't as obvious as those on the other models on test, and hang over the bottom plate. This makes it easy to burn your fingers when lifting the top plate. Although the GEORGE FOREMAN instructions tell you to wear an oven glove when opening the grill, it's not obvious that you'd need one. There are no instructions for the KAMBROOK.
- All the health grills get very hot. When using the SUNBEAM GC8900 it's particularly easy to touch the front surface around the controls which can be very hot during cooking.
- Watch the cord on all of these grills as it can easily become wedged between the plates and burn.

PRODUCT

Brand / model (in rank order)

Breville BGR400 Ikon Grill

DeLonghi CG660

Breville TG870 Healthsmart Grill

Kambrook KCG50 Essentials Health Grill

Sunbeam GC7800 Café Series Contact Grill & Sandwich Press

George Foreman GR36S

Sunbeam GC8900 Café Contact Grill & Barbecue

George Foreman GR30S

What to buy \$

FAMILY SIZE

BREVILLE BGR400 \$185

DE'LONGHI CG660 **BEST BUY** \$179

BREVILLE TG870 Healthsmart Grill \$130

COMPACT

KAMBROOK KCG50 Essentials Health Grill **BEST BUY** \$55

What to look for

FEATURES WORTH CONSIDERING

- Temperature control**
 This allows you to adjust cooking temperatures to suit the kind of food you're cooking, such as high temperatures for searing meat and low temperatures for toasted sandwiches.
- Removable plates** allow for easy cleaning.
- Adjustable height for top plate**
 This allows you to control the pressure on the food, which is particularly handy if you're making melts.
- Cord storage** is neater for storage, and safer if you leave the grill on your kitchen bench when it's not in use.

Vertical storage takes up less space on the bench or in the cupboard and keeps everything packed up neatly.



Removable drip tray Look for a model with a tray that's attached to the grill. Separate trays, such as those on the GEORGE FOREMAN models, are easy to knock over and can get separated from the grill in storage.

Health grills can cook meat, seafood and vegetables, and most double as a sandwich press.

USING THE TABLE

Scores The overall score is made up of:

- Cooking: 60%
- Ease of use: 40%

Price Recommended retail, as of August 2008.

TABLE NOTES

* Based on one average-sized hamburger patty.

** Includes splashguard.

PERFORMANCE		FEATURES						SPECIFICATIONS			
Cooking score (%)	Ease of use score (%)	Dishwasher-safe parts	Variable Temperature control	Removable plates	Adjustable plate height	Cord storage	Drip tray	Dimensions (mm. W x D x H)**	Weight (kg)	Contact	Price (\$)
88	83	Removable plates	✓	✓	✓	✓	Removable	350 x 360 x 154	5.55	www.breville.com.au	185
82	83		✓	✓	✓	✓	Removable	455 x 325 x 165	5.60	www.delonghi.com.au	179
82	78		✓		✓	✓	Removable	385 x 400 x 143	6.30	www.breville.com.au	130
88	68					✓	Removable	280 x 280 x 145	2.45	www.breville.com.au	55
77	80		✓			✓	Removable	420 x 420 x 122	5.65	www.sunbeam.com.au	100
82	70	Removable drip tray					Separate	405 x 390 x 165	4.35	www.saltion.com.au	110
75	80		✓		✓	✓	Removable	425 x 440 x 165	8.90	www.sunbeam.com.au	249
73	70						Separate	360 x 338 x 160	3.75	www.saltion.com.au	100

Profiles

Family size

86% BREVILLE BGR400 Ikon Grill

PRICE \$185

GOOD POINTS

- Excellent results for cooking toast and hamburger patties.
- Equal best for ease of use.
- Has cord storage.
- Grill plates are removable for easy cleaning.
- Variable temperature control.

BAD POINTS

- Not dishwasher-safe.



80% BREVILLE TG870 Healthsmart Grill

PRICE \$130

GOOD POINTS

- Equal second-best cooking score.
- Excellent result for hamburger patties.
- Cord storage.
- Variable temperature control.

BAD POINTS

- Grill plates aren't removable, which makes cleaning harder.
- Not dishwasher-safe.
- Heavy and bulky, which makes it difficult to store.



BEST
BUY

82% DELONGHI CG660

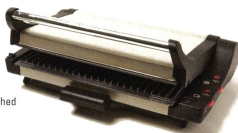
PRICE \$179

GOOD POINTS

- Equal best for ease of use.
- Variable temperature control.
- Grill plates are reversible and can be removed and washed in a dishwasher.
- Two-year warranty.
- Double temperature control allows you to control the two plates independently.

BAD POINTS

- No cord storage.



Compact

80% KAMBROOK KCG50 Essentials Health Grill

PRICE \$55

GOOD POINTS

- Equal-best cooking score.
- Excellent result for hamburger patties.
- Cord storage.

BAD POINTS

- Lowest ease of use score, as it is less versatile than the others on test. However this model would be suitable for smaller households despite its simpler design.
- Grill plates aren't removable, which makes cleaning harder.
- Not dishwasher-safe.
- No variable temperature control.



BEST
BUY

About the rest

- The two SUNBEAM models didn't cook quite as well as the models in the *What to buy* list, and neither has removable grill plates, making them more fiddly to clean.
- Neither GEORGE FOREMAN model has cord storage and their drip trays are separate from the grill, which makes them fiddly to use and easy to knock over. These models are also an awkward round shape which means they're difficult to store. Both models also require the use of an oven mitt when lifting the top plate.

HOW WE TESTED

Cooking Following the manufacturer's instructions, CHOICE's home economists cooked a mixed grill, including lamb cutlets, sausages, tomato halves and rashers of bacon; hamburgers using the grill press for the meat patties and the sandwich press function to toast the hamburger buns; and white sliced bread with cheese and tomato, to see how the grills measured up as a sandwich press.

Ease of use The testers assessed how easy each health grill is to use while cooking, and how easy it is to clean.





Seriously, fun photography

When a compact camera just doesn't satisfy, it might be time to think big.

nutshell

► A digital single lens reflex (DSLR) camera provides a level of versatility and performance beyond a standard compact camera.
► Shop around for a better deal than the recommended retail price.
► Upgrading from the standard kit lens could get you a better quality photo.

Despite their performance limitations, compact cameras have been popular for several years, with many owners now considering their second or third digital camera purchase. However, as you become more familiar with digital photography and the limitations of a compact camera become more apparent, you may want to consider a DSLR, digital single lens reflex camera.

DSLR cameras have enjoyed a steady increase in sales, together with a dramatic drop in price. There are several makes to choose from with camera and lens kits for well under \$1000.

Why choose a DSLR?

A digital SLR offers the creative freedom to either point and shoot or take control of the picture-taking situation when you're feeling inspired. Another reason to consider a DSLR is the pure performance advantage it has over most compact digital cameras.

How often have you grabbed your compact camera to capture that perfect moment, only to see the photo opportunity disappear while the camera starts up?

While four out of 40 models in our last compact camera test were ready in just under two seconds, most took between three and five, with the worst performer

taking more than seven seconds to be ready for that first shot. All the models in our DSLR *What to buy* list take less than a second to start, while two models we tested are ready in less than a third of a second.

Another frustrating part of owning a compact camera is the shutter delay. Among the compacts in our last test, five models delivered a shutter delay of just 0.2 second between the shutter being pressed and the shot taken when focused on a subject one metre from the lens. However most took 0.5 second and 13 of the 40 models we tested took one second or more. In contrast, half the DSLRs in this test took only 0.1 second, while the worst-performing model took 0.4 second.

The versatility of a DSLR really shines when your photographic interests extend beyond the standard holiday photos to areas such as macro or portrait photography. For example, you can attach a macro lens to your DSLR body and get close to your favourite praying mantis or flower. Once you've finished your creative session, simply reattach your standard zoom lens for general photography. >

Jargonbuster @!?

Digital single lens reflex (DSLR) cameras allow the user to see the actual image as it reflects onto a mirror in front of the image sensor. When the shutter button is pressed the mirror lifts and light is captured by the image sensor to create the photo. You can swap the lens on a DSLR by simply removing it from the body and attaching another compatible lens in its place. A DSLR camera is the largest type of commonly available consumer digital camera and is too large to put in your pocket.

Bridge cameras aren't pocket-sized cameras but are usually smaller than a DSLR and generally include a good level of creative photo-taking control and have a good-sized zoom lens. These cameras give you most of the features you'd expect in a digital SLR, except the ability to swap lenses. They are also usually slower to start up and exhibit a greater shutter delay when pressing the shutter button.

Compact cameras can't be beaten for convenience and are often very affordable. However, their small size often means a small zoom range and their shutter delay and start-up times are often frustratingly long.

Did you know?

- **The shutter sound** you hear on your compact camera or phone is completely artificial and was introduced to give users the familiar feeling of a mirror rising and falling like a traditional SLR. In fact, with some cameras and phones you can turn the sound off when taking a photo.
- **Lens quality** Look carefully at the lens when deciding on your SLR camera, as that amazing bargain may be due to a cheap lens. Don't just look at the range of the lens (18-55mm, 70-300mm, etc), check the price of the lens on its own – you may be shocked to see several hundred dollars' difference between lenses that look exactly the same except for a letter or two in the product description and a significant difference in quality.

What to buy



69% SONY ALPHA 700 & 18-70mm DT

PRICE \$1949

GOOD POINTS

- Very easy to use.
- Starts up quickly.
- Fast shutter response.
- It has a very accurate viewfinder.
- Easy-to-use autofocus.
- Comes with a remote control.
- HDMI connection for easy viewing of images on a compatible TV.

BAD POINTS

- Poor resolution of detail in the telephoto range of the supplied lens.
- Poor low-light resolution.
- Poor macro performance with the supplied lens.



68% CANON EOS 450D & 15-55mm IS

PRICE \$1449

GOOD POINTS

- Very easy to use.
- Accurate viewfinder.
- Very good overall shutter delay performance.

BAD POINTS

- Noticeable vignetting in wide-angle mode.



68% NIKON D60 KIT DX 18-55mm ED II

PRICE \$999

GOOD POINTS

- Easy to use.
- Fast in single and continuous picture-taking modes.
- Fast shutter response.
- Accurate viewfinder.
- Good instruction manual.
- Easy access to removable flash storage card.

BAD POINTS

- Picture quality in low light without flash is poor.



68% NIKON D80 DX 18-70mm

PRICE \$2198

GOOD POINTS

- Easy to use.
- Fast in single and continuous picture-taking modes.
- Accurate viewfinder.
- Good instruction manual.
- Easy access to removable flash storage card.

BAD POINTS

- Noticeable vignetting in both telephoto and wide-angle mode.



68% PENTAX K200D KIT & 18-55mm DA AL

PRICE \$789

GOOD POINTS

- Good value as an entry level SLR.
- Starts up quickly.
- Easy to use.
- Fast shutter response.
- Accurate viewfinder.
- Can use normal alkaline AA batteries.

BAD POINTS

- Noticeable vignetting in wide-angle mode.
- Picture quality in low light without flash is poor.
- No rechargeable batteries or charger supplied.



68% SONY ALPHA 350 & 18-70mm DT

PRICE \$1249

GOOD POINTS

- Very easy to use.
- Very good overall shutter delay performance.

BAD POINTS

- Poor macro performance with the supplied lens.

About the rest

- If you want a DSLR but feel you just can't cope with their bulk and are considering a bridge camera instead, one of the OLYMPUS DSLR models could be a good option. All are less than 900g with the lens attached, which is about the same weight as some bridge cameras, and they all have "liveview", an important feature for many compact camera users (see *What to look for*, below). The E420 kit offers two lenses to cover most picture-taking situations and weighs about the same as the top-scoring model in CHOICE's last compact camera test. However, a maximum ISO of 1600 means you could be using the flash more often in low-light situations than with some of the other models.
- The CANON EOS 40D is one of the fastest cameras overall, with very good start-up and continuous shooting times. It also rewards some user control over the exposure settings, which

is reflected in the higher image quality score in manual mode. It has the equal fastest shutter speed of 1/8000 sec in this test, but the second-worst flash score using the onboard flash.

- The SONY ALPHA 200 has a good shutter delay, but it doesn't have liveview.
- While the PANASONIC Lumix DMC-L10 will give you good shutter delay performance, liveview and one of the best-quality photos in automatic mode, it's relatively slow to start up and the maximum ISO of 1600 means you could be using the flash more than you'd like.
- The PENTAX K20D has an accurate viewfinder and delivered very good start-up and shutter delay times. It also has the equal highest ISO setting, which can be handy when the ambient light drops. However, this model would definitely benefit from a lens upgrade.

All the digital SLR cameras on test have at least 10 megapixels - more than enough for A3 photo printing.

What to look for

ESSENTIAL DIGITAL SLR FEATURES

- **Effective resolution (megapixels)** All these cameras have at least 10 megapixels, which is more than enough for A3-sized photo printing. We list effective megapixels in our table, which gives a reasonable indication of the maximum number of pixels the camera uses to create an image.
- **Video output** A video connection port allows you to look at your pictures on TV, usually using a cable supplied with the camera to connect to the video input of the TV.
- **Liveview** This is the ability to take a photo by looking at your subject through the LCD screen on the back. While it's been available on compact digital cameras for years, it's a recent feature for DSLRs and isn't available on all models. Liveview can be very useful when you need to hold the camera at an awkward angle to take the shot.
- **Image stabilisation** Optical image stabilisation can help prevent shaky images by making adjustments internally for the camera's movement. Some cameras have a mechanical system - the next best option after optical image stabilisation, where the camera's sensor moves to counter any movement. Electronic image stabilisation is performed by the camera's processor and is generally the worst type and not of much use.
- **Exposure/playback** This is usually accessed via a selection dial or button and changes exposure settings to suit different situations, such as a snow scene, backlit, landscape shot or indoor photography, as well as a play mode to preview photos already taken. Macro () , landscape () and flash () modes can be selected with a single press of a button or turn of a dial.
- **Preselection of aperture/shutter speed** Aperture controls the depth of field in your picture, allowing you to determine how much of the image is in or out of focus. Setting the shutter speed is handy if you're taking photos of fast-moving objects or to compensate for low lighting. While not as common on compact cameras, all the DSLR cameras we tested have this feature.
- **Delete** This button () allows you to look at the previous photo and remove it without having to switch to review mode.



Viewfinder type All the DSLR cameras we tested have an optical viewfinder that you look through to compose your photo, as well as an LCD monitor on the back of the camera to view images or change menu controls.

Memory cards Aside from making sure the type of memory you buy will suit your camera (see "memory type" in the table), the most important aspect to consider is how much storage you need on each card. You should factor in about \$50 for a 4GB storage card, which is a good size for a DSLR, with capacities up to 64GB available.

- **Manual focusing** is useful for situations where the automated function isn't up to it, such as when the light gets low or the subject is behind glass.
- **White balance** Light comes in many colours - fluorescent is usually greenish, tungsten (normal household bulbs) is red/orange and daylight is blue to red, depending on the time of day. Automatic white balance makes adjustments for these most of the time. However, you'll sometimes get a better result if you manually override the automatic setting, which you can do with all the models we tested.

PRODUCT	PERFORMANCE							FEATURES		SPECIFICATIONS		
Brand / model (in rank order)	Overall score (%)	Auto image quality score (%)	Manual image quality score (%)	Ease of use score (%)	Versatility score (%)	Viewfinder / monitor score (%)	Battery life score (%)	Flash score (%)	Image stabiliser	Liveview	Effective resolution (megapixels)	Zoom range * (35mm equivalent)
Sony Alpha 700 & 18-70mm DT	69	44	52	81	68	73	100	66	Mechanical		12.2	27-105
Canon EOS 450D & 18-55mm IS	68	49	53	81	64	69	100	59	Optical	✓	12.2	28.8-88
Nikon D60 Kit DX 18-55mm EDII	68	47	50	79	65	76	100	63	None		10	27-82.5
Nikon D80 DX 18-70mm	68	56	56	75	66	70	92	61	In lens only		10	27-105
Pentax K200D Kit & 18-55mm DA AL	68	48	49	77	68	69	100	73	Mechanical	✓	10	27-82.5
Sony Alpha 350 & 18-70mm DT	68	50	52	80	70	59	100	67	Mechanical	✓	14	27-105
Canon EOS 40D & 17-85mm EF-S IS USM	67	48	53	81	64	70	100	49	Optical	✓	10.1	27.2-136
Sony Alpha 200 & 18-70mm DT	67	47	50	78	58	70	100	73	Mechanical		10	27-105
Olympus E-420 Kit & 14-42mm ED + 40-150mm ED	66	45	48	76	74	67	100	55	Electronic	✓	10	28-84
Panasonic Lumix DMC-L10 & Leica D14-50mm	66	54	52	75	73	64	100	40	Optical	✓	10	28-100
Pentax K20D Kit & 18-55mm DA AL	66	45	45	78	62	68	100	65	Mechanical	✓	14.5	27-82.5
Olympus E-410 Kit & 14-42mm ED	60	48	44	49	74	72	100	56	Electronic	✓	10	28-84
Olympus E-510 Kit & 14-42mm ED	56	45	41	36	76	72	100	64	Mechanical	✓	10	28-84

A digital SLR is much larger than a compact camera, but once you've enjoyed the benefits of a DSLR, it's hard to settle for anything less.

USING THE TABLE

Scores The overall score is made up of:

- Image quality: 30% (equally for auto and manual)
- Ease of use: 25%
- Versatility: 12%
- Viewfinder/monitor: 12%
- Battery life: 10%
- Flash: 8%
- Movie quality: 3% (none of the models takes video so the scores were recalculated accordingly).

Features See *What to look for*, page 49 for more on features and functions.

Effective resolution (megapixels) This is a standard that is generally accepted as providing a reasonable indication of the maximum number of pixels the camera uses to create an image.

Zoom range (mm) is a 35mm equivalent figure. Optical zoom only, because digital zoom simply crops the image (reducing the number of pixels), which results in reduced image quality.

Memory type

- **SDHC** Secure Digital High Capacity cards have a larger capacity (up to 64GB) but look exactly the same as the earlier SD cards.
- **CF II** Compact Flash is the largest of the storage card formats, although it's still only 43mm x 36mm and 3mm thick. It's a popular format for DSLR cameras due to its larger capacity, high speed and durability, and is rarely used by compact cameras.
- **xD** xD Card, a format used primarily in Olympus and Fuji digital cameras.
- **MS Duo** Small-format version of Memory Stick from Sony. The MS PRO Duo is the same format with larger memory capacities and faster transfer speeds.

TABLE NOTES

* With the lens used for the test.

Batteries All the models tested come with a rechargeable Li-ion battery and charger except the Pentax K200D, which is also the only model that can operate using standard AA alkaline batteries in addition to rechargeable NiMH batteries.

Start-up Measures the time from the moment the power button is pressed until the moment the camera is ready to take its first photo.

Shutter delay How long it takes from when the shutter button is pressed until the shutter opens to take the picture, measured in seconds. The figures show the delay when focusing on a subject at 1m and 10m.

Shortest (two/continuous) "Two" measures the time between two shots taken when the button is pressed and released for the first shot and pressed immediately afterwards for the second shot. "Continuous" measures the delay between each shot in a series of photos when the button is held down.

ISO Measures the light-sensitivity of the camera. The higher the number, the more light-sensitive it is so there is less need to use a flash in low light. However, images can appear grainy when using the highest settings.

Size Includes all protruding parts when the camera is switched off.

Weight Including batteries, memory cards and neck strap if supplied.

Price This is the recommended retail price, as it's the only way to get consistency across all the models we test, but you should be able to find lower prices if you shop around.

	Memory type	Battery type	Monitor size (mm, W x H)	Start-up time (sec)	Shutter delay (1m / 10m)	Shortest (two / continuous)	ISO rating	Dimensions (cm, W x H x D)	Weight (g)	Price (\$)
5-5.6	CF II or MS PRO Duo	1 x Li-ion	60 x 40	0.29	0.1 / 0.3	0.3 / 0.5	100-6400	15 x 11 x 15.5	1090	1949
5-5.6	SDHC Card	1 x Li-ion	60 x 40	0.61	0.1 / 0.2	0.4 / 0.3	100-1600	13 x 10 x 14.5	785	1449
5-5.6	SDHC Card	1 x Li-ion	51 x 38	0.85	0.1 / 0.1	0.7 / 0.4	100-3200	13 x 10 x 15.5	815	999
5-4.5	SDHC Card	1 x Li-ion	48 x 32	0.84	0.3 / 0.7	0.9 / 0.3	100-3200	14 x 11 x 15	1045	2198
5-5.6	SDHC Card	4 x AA	54 x 36	0.46	0.2 / 0.3	0.4 / 0.8	100-1600	13.5 x 10.5 x 15.5	1010	789
5-5.6	CF II or MS PRO Duo	1 x Li-ion	54 x 36	0.77	0.1 / 0.2	0.6 / 1	100-3200	13.5 x 10 x 15.5	965	1249
5-6	CF II	1 x Li-ion	60 x 40	0.27	0.2 / 0.4	0.4 / 0.3	100-3200	15 x 11.5 x 16.5	1380	2299
5-5.6	CF II or MS PRO Duo	1 x Li-ion	54 x 36	0.92	0.2 / 0.3	0.7 / 0.3	100-3200	13.5 x 10 x 15.5	930	899
5-5.6	CFII or xD Card	1 x Li-ion	54 x 40	1.49	0.1 / 0.3	0.3 / 0.3	100-1600	13.5 x 9.5 x 13.5	683	1099
5-5.6	SDHC Card	1 x Li-ion	49 x 37	1.65	0.3 / 0.4	1.1 / 0.4	100-1600	13.5 x 9.5 x 16.5	1040	1759
5-5.6	SDHC Card	1 x Li-ion	54 x 36	0.36	0.2 / 0.2	0.3 / 0.5	100-6400	15 x 10.5 x 15.5	1090	1499
5-5.6	CF II or xD Card	1 x Li-ion	50 x 37	2.96	0.1 / 1.1	3.4 / 0.3	100-1600	13 x 9.5 x 13.5	690	899
5-5.6	CF II or xD Card	1 x Li-ion	50 x 37	3.09	0.4 / 1.3	3.5 / 0.4	100-1600	14 x 9.5 x 13.5	810	999

HOW WE TESTED

Performance was measured using various results such as focusing speed and accuracy, macro performance, any signs of vignetting (loss of brightness at the photo's edges) and distortion, which is where straight lines on objects appear curved in the photo.

Image quality Our testers evaluated the camera's pictures taken in normal situations – indoor and outdoor in both manual and automatic modes. They also looked at the resolution, or sharpness, and checked for evidence of picture noise in bright and dull conditions.

Ease of use A panel of five people assessed how easy the DSLR models are to use, checking aspects such as the instruction manual, viewfinder and monitor, as well as looking at the start-up, shutter delay and continuous shooting times.

Versatility Our testers factored in the memory, light sensitivity adjustment (ISO), white balance, exposure options, viewfinder/monitor size, image deletion, flash type and red-eye reduction.

Viewfinder/monitor They measured the difference between the height and width displayed in the viewfinder/monitor and what is recorded on the final image, and gave an appraisal of the image quality for both.

Battery life Cameras with a score of 100% managed more than 250 photos before the first "battery low" warning. Every fourth image was taken with the flash turned on.

Flash Our testers used the flash at one, three and five metres to check the exposure was even across the image.

CHOICE EXTRA

While DSLR cameras offer some great creative and performance features, compact cameras remain the most popular choice by a significant margin, with more than two million sold over the last year compared with nearly 100,000 DSLRs.

If you're interested in a digital compact camera, check out the options available at www.choiceextra.com.au and click on Jun 08 under "Digital cameras" in the index. All of our *What to buy* models are still readily available. Also, prices for these models should have dropped since June so they're even greater value.

CHOICE verdict

A DSLR can open up a new world of creative photography, with the ability to control the picture-taking environment while avoiding the frustrating delays that still plague most compact cameras. While a DSLR is much larger than a compact camera and may not be for everyone, once you've enjoyed the benefits on offer, it might be hard to settle for anything less.



For lawn appeal

As the temperature rises, so too does the lawn height. So which mower will not only cut your grass well and be easy to use, but also have the least environmental impact?

nutshell

▶ All the mowers on test cut grass well but not all are easy to use.
▶ Petrol or push mower? We weigh up the advantages and disadvantages of both.

It's that time of year again. Spring has sprung and those of us with lawns will be thinking about getting the mower out. CHOICE tested 12 petrol lawnmowers, with 11 of them listed in the table, priced from \$299 to \$729 and six push mowers priced between \$75 and \$122. All the petrol mowers in the table, page 56, have four-stroke engines and we tested one two-stroke mower but could not recommend it for environmental reasons (see *Why no two-stroke mowers?*, below).

Should you burn petrol or use elbow grease?

When it comes to choosing the right mower for your garden you'll need to weigh up the pros and cons of petrol and push lawnmowers. Petrol mowers are noisy, cost money to run, blow fumes, are heavy, take up storage space and of course, are bad for the environment. On the upside, they are easier to push and are generally quicker to get the job done.

Push mowers are quiet, have no running costs, are easy to store and perfect for reducing your carbon footprint. But they do take up more time and energy to use and might not suit everyone. So, what to choose?

Unless you are full of boundless energy you might want to use size as your guide. For inner city dwellers with a small patch of grass, a push mower suits perfectly. If you live on a large block of land, or have a garden that slopes, petrol is still the way to go. While electric mowers are the most environmentally friendly, according to EPA Victoria, most are still not suitable for a huge expanse of lawn. See CHOICE, November 2007, for our electric mower test.

Did you know?

Why no two-stroke mowers in the table? We don't recommend two-stroke engines as they emit more pollution, burning a mixture of petrol and oil rather than straight petrol. A four-stroke motor typically emits half the carbon monoxide and one-tenth the hydrocarbons that a two-stroke produces. However, if you still prefer a two-stroke mower and don't mind mixing up your own fuel, the VICTA TORNADO CLASSIC TCS482 had the same cutting and ease of use scores in our test as its four-stroke cousin, the TCS484, but is 3.5 kg heavier.

What to buy \$

PETROL

HONDA Buffalo Buck HRU 19R	\$729
ROVER Regal 35692	\$569
MASPORT Series 18 500AL	\$650
VICTA Tornado Classic TCS484	\$460

PUSH

FLYMO H40	\$122
McCULLOCH Easy Cut H350GC	\$98

You may think a push mower takes a lot longer to cut the same size patch of grass than a petrol mower. Our testers timed how long it took to cut 50 square metres of short lawn using a petrol and a push mower. The HONDA petrol mower (with a cutting width of 47cm) took just two minutes 40 seconds. The best-performing push mower, the FLYMO (with a 40cm-wide cut), took four minutes 15 seconds – while it certainly does take longer, it's not a bad time at all for a small patch of lawn.

The secret to keeping your lawn perfect with a push mower is vigilance – these models cut best when the grass is short. When it's long, most push mowers would struggle to cut the grass effectively. The TALON manufacturers even state that its push model is "designed to cut small, well-maintained grass areas. Not to cut grass longer than 75mm."

Have your lawn and still be green

With the obvious need to watch our water intake, you may want to consider a lawn that is as environmentally responsible as possible. Warm season grasses, such as couch and buffalo, use less water, but they go dormant and develop a yellowish tinge in some areas during winter. On the plus side they are creeping grasses and will quickly regenerate if they get scuffed.

Cool season grasses such as tall fescue and rye may appear lusher, but they use more water and tend to clump if growing conditions are not ideal. Before you begin planting lawn use compost and look into the greywater or rainwater that might be available. >

Profiles

Petrol mowers

84% HONDA BUFFALO BUCK HRU 19R

PRICE \$729

GOOD POINTS

- Excellent cutting performance on tall grass.
- Very comfortable handle.
- Very easy to start.

BAD POINTS

- Nothing in particular.



83% MASPORT SERIES 18 500AL

PRICE \$650

GOOD POINTS

- Excellent cutting performance on tall grass.
- Excellent handle comfort.
- Very easy to start.

BAD POINTS

- Equal worst in the test for handle vibration.



Push mowers

78% FLYMO H40

PRICE \$122

GOOD POINTS

- Best score overall.
- Easiest to use.
- Very easy to push and manoeuvre.
- Excellent cutting height adjustment.
- Very easy to adjust the cutting blade.

BAD POINTS

- No catcher.



84% ROVER REGAL 35692

PRICE \$569

GOOD POINTS

- Excellent cutting performance on tall grass.
- Very comfortable handle.
- Very good cutting height adjustment.
- Very good catcher.

BAD POINTS

- Nothing in particular.



83% VICTA TORNADO CLASSIC TCS484

PRICE \$460

GOOD POINTS

- Very easy to push and manoeuvre.
- Very comfortable handle.
- Very good cutting height adjustment.
- Very good catcher.

BAD POINTS

- Equal worst for handle vibration.



68% McCULLOCH Easy Cut H350GC

PRICE \$98

GOOD POINTS

- Very easy to adjust the cutting blade.
- Very easy to attach and remove the catcher.

BAD POINTS

- Handle wobbles and may be too short for some people.
- Cutting height adjustment is only OK.



The secret to keeping your lawn perfect with a push mower is vigilance – they would struggle to cut long grass effectively.

The checklist of mower essentials will help you choose a model that suits you and your lawn.

About the rest

PETROL MOWERS

- The MASPORT Series 18 450AL has excellent handle comfort but the controls had a stiff action.
- Even though the YARDMAN has excellent safety features and an easy starting mechanism (see *Start 'em up, right!*), it has a very uncomfortable handle and our testers found it very tiring to manoeuvre. The SUPASWIFT is easier to move and, with the GMC and VICTA PACE, has an uncomfortable handle.
- The ROVER 460 11024 wasn't particularly easy to start and nor was the GMC.
- The TALON rated the worst with our testers, despite having excellent handle comfort and an easy to use key start. It scored poorly for ease of use because it's heavy, tiring to use and has a difficult to access and heavy catcher. It also didn't perform as well as other models for cutting performance for tall grass.

PUSH MOWERS

- The handles on the GARDENER'S CHOICE and the MORRISON wobbled a lot when in use and may be too short for some people. The TALON also had a short handle and it was difficult to adjust the cutting blade.
- The OZITO had a good handle but it was fiddly to adjust the cutting blade. It also had a narrow cutting range compared with other models, as did the GARDENER'S CHOICE.
- As with the petrol models, the TALON was the worst performer of the push mowers. It rated the worst in this test for ease of use, was the heaviest model on test, with a fiddly catcher that was difficult to install and remove. Our testers found its cutting height and cutting blade was difficult to adjust.

HOW WE TESTED

Our CHOICE testers packed up the mowers, said goodbye to a cold Sydney winter and headed to Far North Queensland where, thanks to a consistent climate, there's plenty of grass to cut all year round. The mowers were weighed, their cutting height range was assessed and they were checked to see how close each could cut next to a vertical wall at the front and sides.

PETROL MOWERS

Performance Our CHOICE testers put all the lawnmowers through their paces to check their ability to cut short and medium length grass with a catcher, and long grass without a catcher. They also assessed the appearance of the lawn after the short and medium grass cutting tests.

Ease of use They were rated for vibration through the handlebar, ease of pushing and manoeuvring, handle comfort and convenience of controls, ease of adjusting the cutting height, catcher convenience and ease of starting.

Noise was also measured at a distance of 7.5 metres and at ear level too.

Safety They checked the blade stopping time and conducted foot probe safety tests.

PUSH MOWERS

Performance Our CHOICE testers cut short grass with the catcher attached (where there was one) and medium length grass without the catcher. Again, they assessed the appearance of the lawn after both tests.

Ease of use They checked the ease of pushing and manoeuvring, handle comfort and cutting height adjustment of each mower. The testers also checked how easy it was to adjust the bottom blade which controls the gap between the reel and the fixed blade.



What to look for

PETROL MOWER ESSENTIALS

- The **handlebar** should be comfortable to hold and preferably height-adjustable. A turned-up handle is easier on your wrists and gives better control over the mower.
- The **engine control lever** should be on the handlebar for easy access, and should be easy to operate.
- Check that the **starter cord** is easy to pull. It's generally easier to operate when the cord is located on the engine, but a handle-mounted cord is good if you can't easily bend over – but make sure it's not mounted too high, as this can require a lot of shoulder strength to pull.
- Look for a large number of **cutting positions** spread over a useful range of cutting heights. Make sure the cutting height is easily adjustable.
- The mower should be **easy to push and manoeuvre** in all the conditions you'll use it. Big wheels improve handling on rough ground and a lightweight model is easier to push and turn.
- Check that the mower is **easy to maintain**: can you easily change the oil, air filter and spark plugs?

PUSH MOWER ESSENTIALS

- Look for a model with a **catcher** – unless you are keen to spend more time in the garden with a rake after mowing.
- Make sure the mower is **lightweight** and isn't too difficult to push along.
- Check that the handle is **height adjustable**.



A wash port or nozzle on top of the housing makes it easy to clean underneath the mower, including the blades.



The **catcher** should have two handles: one on top for carrying, and one on the back for easy emptying. All the petrol models in this test had a catcher.

START 'EM UP

Two of the petrol engines of the mowers on test started differently from the pull cord usually found on the engine or the handlebar.

- The **YARDMAN** is fitted with a **deadman's handle**, pictured, which stops the engine almost instantly when it's released. With this model, however, it also winds up a starter mechanism that starts the engine whenever the handle is squeezed again. It has a plastic safety key that can be removed so it cannot be started by accident or by children. Our testers, however, found it difficult to push and the handle uncomfortable as the safety bar needs to be held down at all times.
- The **TALON** has a key on the handlebar that you turn to fire up the engine, just like a car. However, this mower had the worst overall score in the test.



Petrol mowers

PRODUCT	PERFORMANCE			SPECIFICATIONS							
Brand / model (in rank order)	Overall score (%)	Cutting score (%)	Ease of use score (%)	Noise at 7.5 m / user's position (dB)	Starter toggle	Closeness of cut to vertical edge (mm, front / right / left)	Measured cutting height range (mm)	Width of cut (cm)	Weight (kg)	Contact	Price (\$)
Honda Buffalo Buck HRU 19R	84	98	70	72 / 86	Halfway up handle	120 / 15 / 13	17-78	47	27.6	www.hondampe.com.au	729
Rover Regal 35692	84	98	70	74 / 89	On motor	135 / 18 / 15	8-60	45	26.9	www.rovermowers.com.au	569
Masport Series 18 500AL	83	98	68	71 / 86	Halfway up handle	115 / 33 / 15	15-76	46	25.4	www.masport.com.au	650
Victa Tornado Classic TCS484	83	95	70	70 / 85	On motor	115 / 15 / 18	20-68	48	22.7	www.victa.com.au	460
Masport Series 18 450AL	82	95	68	70 / 85	Halfway up handle	112 / 32 / 15	15-75	46	25.3	www.masport.com.au	599
GMC RL504	81	92	70	67 / 80	On motor	105 / 20 / 17	20-85	46	25.4	www.gmcompany.com	299
Rover 460 11024	81	95	66	75 / 87	On motor	105 / 20 / 15	7-55	45	25.3	www.rovermowers.com.au	299
Victa Pace by Victa PCS464	81	95	66	73 / 86	On motor	120 / 24 / 12	10-75	46	21.9	www.victa.com.au	319
Yardman Self Starter 409S	81	98	63	74 / 87	Deadman's handle	135 / 20 / 17	10-62	46	31	www.mtdproducts.com.au	559
Supaswift Lawncruiser 767QC	78	92	63	71 / 85	Halfway up handle	90 / 20 / 10	10-70	46	23.9	www.allpower.com.au	599
Talon Condor AM3070	66	92	40	73 / 86	Key on handle	122 / 32 / 28	15-52	47	42	www.talontools.com.au	699

Push mowers

PRODUCT	PERFORMANCE			SPECIFICATIONS						
Brand / model (in rank order)	Overall score (%)	Cutting score (%)	Ease of use score (%)	Catcher	Cutting positions	Measured cutting height range (mm)	Width of cut (cm)	Weight (kg)	Contact	Price (\$)
Flymo H40	78	68	88		Four	10-32	40	7.6	www.husqvarna.com.au	122
McCulloch Easy Cut H350GC *	68	70	65	✓	Variable	10-42	35	6.5	www.husqvarna.com.au	98
Ozito Hand Mower LMP-301 *	67	68	65		Variable	13-40	30	6.4	www.ozito.com.au	75
Morrison Handmower 552462	64	70	58	✓	Variable	10-45	40	7	www.masport.com.au	99
Gardener's Choice Hand Mower GC 029	63	70	55	✓	Variable	12-45	30	6	www.kmart.com.au	80
Talon Hand Push Reel Mower AM201816C	55	70	40	✓	Four (+ one variable)	20-45	40	9.4	www.talontools.com.au	99

USING THE TABLE

Scores The overall score is made up of:

- * Cutting performance: 50%
- * Ease of use: 50%.

Cutting performance

- * Cutting: **Petrol** Short, medium and long grass. **Push** Short and medium grass. All were weighted equally.
- * Appearance: How the grass sections of each length looked after cutting. All were weighted equally.
- * Cutting performance and appearance were weighted equally.

Ease of use

Petrol

- * Handlebar vibration.
- * Pushing and manoeuvring.
- * Handlebar comfort.
- * Controls.
- * Grass catcher.
- * Ease of adjusting the cutting height.
- * Ease of starting.

Noise Testers measured the noise the mowers made from 7.5 metres away and at the operator's ear level.

Ease of use

Push

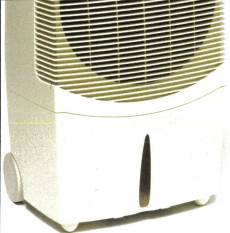
- * Handlebar vibration.
- * Ease of adjusting the cutting height.
- * Ease of adjusting the bottom blade.

Cutting positions These mowers have between eight and 12 positions. The cutting height is based on the distance between the blade and the bottom of the wheels.

Price Approximate retail, as of September 2008.

TABLE NOTES

* Only available at Bunnings.



Watering down the heat

In a hot, dry climate, a portable evaporative cooler is an effective way to cool down.

nutshell

► Of the two widely available brands of evaporative coolers, one outperformed the other.

If you live in a region where the summers are hot and dry, such as inland Australia, a portable evaporative cooler can be a cheap and effective way to keep you cool over those long sunny days. However, if you live in a humid area, it won't be the most effective option.

Evaporative coolers work by drawing hot, dry air across a wetting medium, typically made from a shredded wood composite or foam which is saturated with water from the unit's inbuilt water tank. The water evaporates, absorbing heat from the air, and the cooler but moister air is blown into the room.

They're simple to operate; you just fill the water tank (and ice tray, if there is one) and turn it on. Because evaporative coolers need a constant source of hot, dry air to work effectively, you need to leave a

door or window open and position the unit near it. The open door or window also helps keep down the overall humidity in the room – the more humid the room, the less effective the cooler. Evaporative coolers work best in low humidity areas (about 30% humidity or less); for example, a summer afternoon in Mildura. They also work fairly well in moderate humidity (about 40%-50%), such as a summer afternoon in Melbourne. In more humid climates, standard refrigerative air conditioners are more effective as they dehumidify the air, however, they're also more expensive and consume more electricity.

CHOICE bought all readily available portable evaporative coolers on the market – four CONVAIR and three IXL models – and put them to the test. >

What to buy

See the table, page 58, for scores and other ratings.

72% CONVAIR Magicool 004006

PRICE \$259

GOOD POINTS

- Good evaporative efficiency.
- Easy to use and has very easy internal access for cleaning the wetting medium – tools are not required to remove the back panel.
- Fold-out foot for extra stability.

BAD POINTS

- Can be difficult to drain residual water from the tank; the drainage outlet is too low to easily put a bucket or tray under without lifting the unit.



72% CONVAIR Mastercool 850238-C

PRICE \$369

GOOD POINTS

- Highest evaporative efficiency in the test.
- Controls are very easy to use.
- Small water filling spout.

BAD POINTS

- Small water filling spout.



About the rest

- The CONVAIR Megacool has good airflow but its evaporative efficiency isn't quite as good as the recommended models, and its filling spout wouldn't stay fully open while filling.
- The CONVAIR Coolmaster is very easy to use and has the highest airflow in the test, but its evaporative efficiency is poor (but the manufacturer disputed this). It's the biggest model tested and has comparatively high power consumption.
- The IXL Blizzard has good airflow but poor evaporative efficiency and the highest power consumption in the test. Its controls aren't clear and simple and its drainage outlet is not easy to use.
- The IXL Compact is comparatively quiet, but has poor airflow and evaporative efficiency, and isn't easy to drain without lifting.
- The IXL Icecap 2 has the lowest airflow and evaporative efficiency in the test, and also rated poorly for ease of use due to the difficulty of filling and draining its tank and of access for maintenance.

If water is scarce where you live, look for an efficient cooler with a low water use rate and a large tank.

< Is bigger better?

Not necessarily. The larger the model, the more powerful its fan is likely to be, but it won't always be the most efficient at cooling. Nevertheless, a bigger model will typically be able to cool a larger area than a smaller model. The biggest model in this test, the CONVAIR Coolmaster, has a very high airflow but relatively poor evaporative efficiency, which means that while it can blow much more air around than the others, it doesn't cool that air as efficiently. The manufacturer said they had measured much better evaporative efficiency for this model and suggested our sample might be defective, but we couldn't find anything obviously wrong with it. Both the Coolmaster and the next largest model, the IXL Blizzard, are also considerably bigger consumers of electricity than the other models (but still much less than an air conditioner).

Good things can come in small packages too. The CONVAIR Magicool, one of the smallest models in the test, is one of our recommended models. ■

Too humid



HOW WE TESTED

We put the coolers through a range of performance tests, based on the Australian Standard for evaporative coolers, AS2913-2000.

Evaporative efficiency When water evaporates, it absorbs heat from the surrounding air. High evaporation efficiency means the cooler gets a better cooling effect for the water it uses.

Airflow This is a measure of how much air the cooler can blow out in a given time. A strong airflow generally allows the unit to cool a larger area more effectively.

Noise Measured one metre from the cooler at high and low fan speeds.

PRODUCT	PERFORMANCE		
Brand / model (in rank order)	Overall score (%)	Evaporative efficiency score (%)	Airflow score (%)
Convairst Magicool 004006	72	79	56
Convairst Mastercool 850238-C	72	81	70
Convairst Megacool 009438	69	72	76
Convairst Coolmaster 3000	64	43	98
IXL Blizzard 42056 (A)	55	40	76
IXL Compact 42055 (B)	41	39	30
IXL Icecap 2 42054	20	10	25

FOR PEOPLE WITH A DISABILITY

- Controls should be clearly labelled in contrasting colours and easy to operate. The CONVAIR Mastercool rated best in this respect.
- The water level indicator should be easy to read while filling the water tank. The CONVAIR Coolmaster and Magicool have easy to read indicators. The IXL Blizzard's indicator is also easy to read but is on the front of the unit, while the water inlet is on the side.
- The drainage outlet on all the models is positioned quite low, so if you have trouble bending over you might find this difficult. Check the model in the store.
- All the models have castors or wheels and are fairly easy to move.
- Assembly is straightforward for the tested models, but some are quite heavy so you may need assistance while putting them together.

Ease of use

- Filling the water tank** An inlet spout that's large enough and accessible, and a water level indicator that's easy to read.
- Controls** Easy to operate and labels that are easy to read and understand.
- Access for maintenance** Easily removable panel, dust filter and wetting medium, preferably not requiring tools.
- Draining the water tank** A drainage cap that's easy to access and remove. Whether the cooler can fit a bucket underneath while draining, so you don't need to take it outside.

FEATURES								SPECIFICATIONS					
Noise (dBA) *	Water tank capacity (L)	Number of fan speeds	Remote control	Dust filter	Ice tray	Louvers	Off timer **	Dimensions (mm, HxWxD)	Weight (kg)	Length of cord (m)	Power consumption (W) *	Contact	Price (\$)
62	13	3				Fixed		715 x 400 x 275 (G)	7.5	2.23	58	www.seeleyinternational.com	259
66	14	3				Manual		815 x 550 x 255	10	1.95	66	www.seeleyinternational.com	369
66	14	3				Oscillating		1000 x 550 x 260	11	1.97	66	www.seeleyinternational.com	399
70	18	3				Manual		1055 x 635 x 470	18.4	2.52	206	www.seeleyinternational.com	449
69	20	4 (C)	✓	✓	✓	Oscillating	✓ (D)	840 x 470 x 390	10.8	1.82	238	www.sampfordixl.com.au	265
55	6	3		✓		Oscillating	✓ (E)	615 x 395 x 295	6.7	1.87	56	www.sampfordixl.com.au	159
62	9	3	✓	✓	✓	Oscillating	✓ (F)	640 x 400 x 305	7.3	1.95	56	www.sampfordixl.com.au	169

USING THE TABLE

Scores The overall score is made up of:

- Evaporative efficiency (averaged across high and low fan speeds): 56%
- Airflow at high fan speed: 24%
- Ease of use: 20%

Ease of use consists of:

- Filling: 60%
- Controls: 20%
- Access: 16%
- Draining: 4%

Price Recommended retail in Sept 2008, or the price we paid.

TABLE NOTES

* Measured at high fan speed.

** A timer that can switch the unit off after a set period.

(A) Discontinued; replaced by model 42058, RRP \$299.

(B) Exclusive to Beta Electrical; being discontinued but still available in some stores.

(C) Three fan speeds plus a sleep mode, which cycles the fan through five seconds each on high, medium and low speeds then stops for four seconds before repeating.

(D) A range of one-hour intervals from one to eight hours.

(E) Four settings: one, two, four or eight hours.

(F) A range of 30-minute intervals from 30 minutes to 7.5 hours.

(G) Excluding handle.

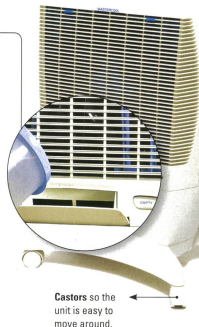
What to look for

EVAPORATIVE COOLER FEATURES

- **Good airflow** but not so strong it's uncomfortable. The CONVAIR Coolmaster has a very high airflow score at high fan speed which makes it better at cooling a large room, but it might be uncomfortable to sit close to. Ask to try the cooler in the shop.
- **Louvers** that adjust and/or oscillate.
- **Fan and wetting medium** The best performing models in our test have propeller fans and shredded wood wetting mediums. Other types include cylindrical fans and foam or fabric wetting mediums.
- **Dust filter** helps keep the air clean as it enters the cooler. In the CONVAIR models, the wetting medium also serves as the dust filter.
- **Low water consumption rate** A large water tank combined with a low water consumption rate means the cooler runs longer between refills, which is useful if water's scarce where you live. The IXL models claim to consume a low 0.5 litre per hour. Top up the tank before you turn the cooler on, and occasionally check the water level.
- **Easy access** to the inside for maintenance. You should clean the dust filter and wetting medium a few times a year and replace them after a few seasons. The tank needs occasional cleaning to remove slime or mineral deposits. Dry the wetting medium occasionally by running the cooler in fan-only mode. Check the instructions.

Filling spout that's large and accessible, so topping up the water tank is easy.

- **Drain cap** that's secure but easy to undo; it helps if you can fit a bucket under the drain spout. You should drain the tank and clean and dry the wetting medium before storing the unit for a long period.
- **Controls** that are clear and simple to operate.
- **Stability** So it won't easily tip over.
- **Noise** Most of the tested models are fairly noisy; some are about as noisy as a vacuum cleaner.
- **Ice tanks** don't necessarily make the air much colder, but because the ice melts slowly, you won't need to fill the water tank so often. However, using energy to make the ice reduces the overall energy efficiency of using an evaporative cooler.
- **Off timer** can be handy – it turns off the cooler after a set time. None of the tested models has an on timer to activate the unit at a set time.



Castors so the unit is easy to move around.



Dodging traffic

Some of the latest GPS devices not only get you from A to B, but tell you what to avoid along the way.

nutshell

- Some of the models on test performed better in the city than the country.
- Live traffic updates have arrived in Australia, but only for Melbourne, Sydney and Brisbane.

Australia's obsessions with new technology and motoring are making the car GPS a must-have item for drivers, with sales increasing almost threefold over the past year.

A car GPS is like an electronic street directory that not only shows you how to get from one point to another but also connects to a series of satellites to calculate your position. Our latest batch of 14 models, priced from \$199 to \$599, include five you'd be happy to take with you on that next journey into the unknown. Most of the models we tested performed well overall, particularly if you stick to city driving.

Better SUNA than later?

For several years, GPS users in Europe and the US have enjoyed "live" traffic updates, forewarning motorists of potential delays. Now Australian drivers in our three largest cities can save time by knowing where the traffic problems are before it's too late.

The newly created SUNA Traffic Channel, (SUNA is a play on the word "sooner" – as in getting to your destination sooner) is a local version of the Traffic Message Channel widely used throughout Europe and the US. It is available in Melbourne, Sydney and Brisbane, with Perth and Adelaide having to wait until sometime in 2009 to go online. Armed with the new service, motorists can be redirected around accidents, traffic jams and other hazards.

If your car GPS supports SUNA (check the table for capability), you can get information such as what's causing a delay, where the incident is, the length of the delay if you stay on the original route and options for a detour to get to your destination. Some units have the support built into the unit, while other models need an optional attachment to receive the information.

What to buy \$

TOMTOM GO 720	\$549
TOMTOM XL	\$399
NAVMAN S50	\$349
TOMTOM One	\$299
GARMIN nüvi 760	\$599

Locked in to the map

The two main map choices available to car GPS users in Australia are Whereis and Navteq. The car GPS you choose determines which map you get, so you can't use a Whereis map in a GPS that uses Navteq and vice versa.

You can purchase map upgrades to keep up to date on the inevitable changes in roads, traffic directions and speed limits. However, these upgrades cost anywhere from about \$100 up to \$180, so you might want to check with the company to clarify its map upgrade policy. Some companies offer to upgrade the car GPS to the latest maps if a new version is released within a month of purchase, other companies include one upgrade to the next map version when it arrives and some offer nothing.

For city driving, GPS units with Navteq maps performed marginally better those with Whereis maps. However, the models that use Navteq map data scored significantly worse in our country driving test. The quality of the information provided to the user is not only dependent on the map provider but also the companies that make the car GPS units. This is why our CHOICE tester observed several differences in map accuracy on models using supposedly the same map data.

Some models that use Navteq maps, such as the recently released MIO and GARMIN range, were not available for this test but will be included in our next roundup. >

WELCOME TO CAMDEN – CALIFORNIA

While the technology that enables users to successfully get from A to B based on a satellite that pinpoints a position on the globe is amazing, car GPS units are not infallible. One of our test models (a GARMIN) announced correctly that the tester had arrived at the University of Sydney, Camden, campus; however it also announced that our tester was in California.

Other models insisted that the tester make a sharp right turn on the M5 in Sydney, which was impossible as it meant going through a wall, then proceeded to set a new route of 38km to get to a destination instead of merely turning left.

What to look for

BEFORE BUYING A CAR GPS

- **Data entry** Keying in your favourite addresses and points of interest (POI) should be quick and easy. Also, check to see if it's difficult to use your fingers to select points on the screen or whether you need to use a stylus.
- **Display** The screen should be large and glare-free, and show the information you want to see, such as distance to the next turn, current street name, time of arrival, car speed and distance to destination.
- **3D** Some car GPS devices offer the ability to show rendered versions of popular landmarks as 3D objects. However, don't expect your car GPS to suddenly render your trip in 3D just yet, with only major landmarks rendered so far.
- **Voice instructions** Make sure they're clear and loud enough to hear over the hum of the engine. The ability to change the voice may also be handy if you find the default voice irritating. All provide English spoken instructions plus at least another two languages, except the MAGELLAN RoadMate 1200 and the VOXSON GPS350, which only have English.
- **Installation and portability** Check how easy the system is to install and how easy it is to remove and carry – thieves are more likely to target cars where they can see a shiny GPS system through the window.



Memory cards may contain the latest maps or can also store images, music and video files.

Upload points of interest Check that you can upload additional points of interest (POI), from manufacturers' websites and/or enter your own. These POI can be transferred to your unit using a USB connection or via a removable flash card.

ESSENTIAL CAR GPS FEATURES

All the tested models have these features, unless specified.

- **Colour LCD display** in landscape format with touchscreen controls.
- Options to calculate **fastest and shortest routes**, which aren't necessarily the same.

Only the GARMIN and TOMTOM models offer support for the Apple Mac computer.

FEATURES IN THE TABLE

Widescreen Smaller units display in a 4:3 ratio, while widescreen models display in 16:9.

Bluetooth The unit can connect with some Bluetooth-enabled mobile phones allowing you to make phone calls by selecting certain POIs.

MP3 player You can play MP3 files on your GPS – although not usually while you're using it to navigate.

Photo/video/Ebook Some units can show photo images, play certain video formats and even display text documents.

Full route display Most car GPS devices project the entire route as a line on the map from your existing position through to your destination.

Walking mode This allows you to plot a route for pedestrians, such as walking the wrong way down one-way streets or taking a short-cut through a park. This mode can also be used to retrace your steps to find where you left your car.

Trip planning Run through your driving route before you even get into the car.

SUNA capable You can use your car GPS to access SUNA live traffic data to avoid traffic delays on your intended route. This support is either built into the unit or is available as an attachment.

Routing options You can program it to exclude toll roads, unsealed roads or highways from the calculated route.

Map upgrade price All these units can be updated to read the latest Whereis or Navteq maps, however the prices differ from model to model.

HOW WE TESTED

City Our tester selected six destinations – a railway station, airport, university, medical centre, golf course and a sports complex – and, starting from the same point, drove the route with all models to see if they located them correctly. He also compared actual travelling times and distances with those predicted by the GPS.

Country He selected a combination of wineries, a tourist attraction/winery and three hotels from the 2008 Hunter Valley Tourist Guide to find out if the GPS provided accurate directions. Locations were selected where the guide showed a proper street address; that is, house/lot number, street name and town name.

Ease of use Our tester assessed how useful the instructions were to operate the unit, how easy it was to attach the GPS to the windscreens and whether it vibrated during driving. He looked at how easy the controls were to use, how easy it was to use the menu structure on the touchscreen and, where supplied, if it was necessary to use a stylus to make entries. The quality of the

data displayed on the screen, which included timing of the turn directions, distance to the next turn, display of street names and the turn direction symbols, were also assessed.

Verbal instructions were assessed by listening to the quality of the voice, the timing of turn and other instructions, the specificity of the instructions, and whether it was possible to rely on verbal instructions alone or look at the screen occasionally.

Screen quality Our tester compared how easy it was to read the map and how clear the picture was in daylight and at night.

Points of interest He selected 20 types of points of interests, such as a hospital, medical centre, airport, police, shopping centre, tourist attraction and so on, and rated the models based on how many they had provisions to search for. He also looked at whether they could calculate an A-B route, which was to travel from Adelaide to Kingscote, Kangaroo Island, using a ferry.

Durability He checked the systems after three hours in a temperature-controlled oven at 60°C to simulate being in a car on a hot day.

The quality of the map data in your GPS is determined by the GPS company.

What to buy



87% TOMTOM
GO 720

CITY VERY GOOD
COUNTRY GOOD

PRICE \$549

GOOD POINTS

- Full route displayed automatically before each trip.
- Calculates A-B route.
- Excellent route display.
- Excellent screen visibility in daylight.
- Automatic change from day to night screen.
- Excellent voice quality.
- Compact, easy to carry in the pocket.
- Quick-start guide and instructional CD.

BAD POINTS

- No printed manual.
- Unit vibrates a little on rough roads.



86% TOMTOM
XL

CITY VERY GOOD
COUNTRY GOOD

PRICE \$399

GOOD POINTS

- Full route displayed automatically before each trip.
- Calculates A-B route.
- Excellent route display.
- Excellent screen visibility in daylight.
- Automatic change from day to night screen.
- Excellent voice quality.
- Compact, easy to carry in the pocket, with the car mount attached.

BAD POINTS

- Very basic user manual.
- Difficult to attach the mount to the windscreen.
- No removable memory support.



83% NAVMAN
S50

CITY GOOD
COUNTRY VERY GOOD

PRICE \$399

GOOD POINTS

- Automatic change from day to night screen.
- Quick-start guide and instructional CD.

BAD POINTS

- No printed manual.
- Muffled voice instructions.

PRODUCT	PERFORMANCE							FEATURES															
Brand / model (in rank order)	Overall score (%)	Sydney driving test score (%)		Country driving test score (%)		Ease of use score (%)		Verbal instructions score (%)		Screen quality score (%)		Points of interest score (%)		Widescreen	Bluetooth	MP3 player	Photo / video / Ebook	Full route display		Walking mode	Trip planning	SUNA capable	Routing options: no tolls / no unsealed roads /
TomTom GO 720	87	80	75	96	90	100	100	✓	✓	✓	✓ / - / ✓	✓	✓	✓	✓	✓	✓ / - / ✓	✓	✓	✓	✓	✓	✓ / - / ✓
TomTom XL	86	78	75	94	90	100	100	✓			- / - / -	✓	✓	✓	✓	✓	- / - / -	✓	✓	✓	✓	✓	✓ / - / ✓
Navman S50 (A)	83	75	83	93	80	87	90	✓	✓		- / - / -	✓ (C)					- / - / -	✓ (C)			✓	✓	✓ / - / ✓
TomTom ONE	83	78	67	91	90	100	100				- / - / -	✓	✓	✓	✓	✓	✓ / - / -	✓	✓	✓	✓	✓	✓ / - / ✓
Garmin nüvi 760	82	80	67	93	90	100	77	✓	✓	✓	✓ / - / ✓	✓ (C)	✓				✓ / - / -	✓ (C)	✓				✓ / - / ✓
Uniden TRAX 325	80	65	75	90	90	77	100				- / - / -	✓ (C)	✓		✓		- / - / -	✓ (C)	✓	✓			✓ / - / ✓
Uniden TRAX 430	80	62	75	94	95	70	100	✓			- / - / -	✓ (C)	✓	✓	✓		- / - / -	✓ (C)	✓	✓	✓		✓ / - / ✓
Garmin nüvi 255	78	65	67	93	90	100	72				- / - / -	✓ (C)	✓				✓ / - / -	✓ (C)	✓		✓	✓	✓ / - / ✓
Logic Gear XL488	78	66	75	88	85	70	96	✓	✓	✓	✓ / ✓ / ✓ / ✓	✓ (C)	✓		✓	(D)	✓ / ✓ / ✓ / ✓	✓ (C)	✓		✓	✓	✓ / - / ✓
Magellan Maestro 4250 (B)	73	79	42	90	78	93	81	✓	✓		- / - / -	✓ (C)					- / - / -	✓ (C)				✓	- / - / -
Magellan RoadMate 1200 (B)	72	79	42	89	73	93	81				- / - / -						- / - / -						✓ / - / ✓
Voxson GPS350	70	79	33	82	85	80	91				- / - / -	✓ (C)	✓	✓	✓	✓	- / - / -	✓ (C)	✓	✓	✓	✓	✓ / - / ✓
Laser L35	67	74	33	76	85	80	77			✓	✓ / ✓ / ✓ / ✓		✓				✓ / - / ✓		✓				✓ / - / ✓
Laser L43	66	72	33	77	85	80	77	✓	✓	✓	✓ / ✓ / ✓ / ✓		✓				✓ / - / ✓		✓				✓ / - / ✓



83% TOMTOM ONE

CITY VERY GOOD
COUNTRY OK

PRICE \$299

GOOD POINTS

- Full route displayed automatically before each trip.
- Calculates A-B route.
- Excellent route display.
- Excellent screen visibility in daylight.
- Automatic change from day to night screen.
- Excellent voice quality.
- Compact, easy to carry in the pocket, with the car mount attached.

BAD POINTS

- Very basic user manual.
- Difficult to attach the mount to the windscreen.
- No removable memory support.



82% GARMIN nüvi 760

CITY VERY GOOD
COUNTRY OK

PRICE \$599

GOOD POINTS

- Excellent route display.
- Excellent screen visibility during daylight.
- Automatic change from day to night screen.
- Names the upcoming streets.

BAD POINTS

- No printed manual, only quick-start guide.

About the rest

Even though these models didn't make the *What to buylist*, they scored well and even our worst two performers didn't score poorly overall.

- The two UNIDEN models scored well in the country, OK in the city and have all the features you would want in a car GPS, except Bluetooth.
- The GARMIN nüvi 255 is a good, compact basic unit that won't break the bank and also provides reasonably priced map upgrades.
- Despite using last year's maps, the two MAGELLAN models performed well in most areas and although returning a poor performance score for our country test, were the best of the models with Navteq maps in the city test.
- The LOGIC GEAR XL488 and VOXSON GPS350 we tested can't connect to a PC, with the USB connection used for charging only.

MAPS ARE JUST PART OF THE PICTURE

Maps are, of course, a crucial component of a car GPS, with the choice of either Whereis or Navteq map data installed in the internal memory of the device or onto a removable memory card which the GPS then reads.

When a map upgrade is released, the data is made available to the various car GPS companies who then choose the level of detail they want to include on each of their models. Some companies decide to include virtually all the available data, while others incorporate less.

The level of detail and the quality of the technicians at each company determine the quality of the information you get, which is why some of these models perform better than others with what should be exactly the same map data.

USING THE TABLE

Scores The overall score is made up of:

- Performance: 50% (city 25%, country 25%)
- Ease of use: 15%
- Verbal instructions: 15%
- Screen quality: 10%
- Points of interest: 10%

For more on the tests see *How we tested*, page 61.

For an explanation of features, see *What to look for*, page 61.

Price Recommended retail, September 2008.

TABLE NOTES

(A) Discontinued but may still be available in some stores. Also, last year's model, R14, was used.

(B) Last year's map was used. Latest version includes Q108 data.

(C) Not automatically, but can be selected.

(D) Only when there is no satellite reception.

SPECIFICATIONS

	Map update price (\$)	Memory card type	Dimensions (mm, H x W x D)	Weight (g)	Contact	Price (\$)
ereis	149	SD	83 x 118 x 24	220	www.tomtom.com	549
ereis	149		82 x 120 x 25	232	www.tomtom.com	399
ereis	180	SD	80 x 140 x 20	194	www.navman.com.au	399
ereis	149		78 x 90 x 25	192	www.tomtom.com	299
ereis	99	SD	75 x 122 x 19	176	www.garmin.com	599
ereis	180	SD	82 x 103 x 22	169	www.uniden.com.au	300
ereis	180	SD	80 x 130 x 22	213	www.uniden.com.au	380
ereis	99	Micro SD	75 x 98 x 19	147	www.garmin.com	299
ereis	133	SD	85 x 132 x 22	208	www.logicgear.com.au	499
teq	149	SD	82 x 124 x 18	206	www.destinator.com.au	599
teq	149	SD	84 x 92 x 18	140	www.destinator.com.au	299
teq	117	SD	88 x 100 x 20	160	www.voxson.com.au	199
teq	N/A	SD	80 x 103 x 20	175	www.laserco.net	279
teq	N/A	SD	88 x 120 x 22	218	www.laserco.net	499

Nowadays there are so many product recalls we may not be able to print all of them in CHOICE. For comprehensive recall information go to the Product Recalls Australia website: www.recalls.gov.au. If you don't have web access, call the Product Safety Policy section of the ACCC on 02 6243 1262.

Companies often rent 1800 numbers for a couple of months after a recall is announced. If the number given is no longer operating, phone the manufacturer or retailer direct.

FOOD ■ Fonterra has recalled **Mainland Fetta Crumble**, 200g and 500g pouch packs with zip lock, all use-by dates.

The problem It may contain *Listeria monocytogenes*, which can cause illness or miscarriage in pregnant women, or illness in young children, the elderly or people with a low immune system.

What to do Don't eat it. Return it to the place of purchase for a refund, or for more information call 1800 633 275.

FOOD ■ Smashing Pumpkins has recalled **Smashing Pumpkins Yoghurt Sultanas** tub, a plastic container available in various weights, with use-by date 15.09.08, and sold in NSW.

The problem It contains peanuts, which aren't declared on the label.

What to do Don't eat it if you have a peanut allergy or intolerance. Return it to the place of purchase for a refund.

FOOD ■ WeightWatchers has recalled **WeightWatchers Australia Rich Toffee Bars**, a cardboard box containing five 28g bars, batch code numbers L8079 and L8080, with a best-before date of MAR-09.

The problem It contains egg white, which isn't declared on the label.

What to do Don't eat it if you have an allergy or intolerance to egg. Return it to the place of purchase for a refund, or for more information call 13 19 97.

TOY ■ The Rejection Shop has recalled **Knights Set**, 32 pieces, 276g, with barcode number 22053169. It's been for sale at The Rejection Shop since July 2007.

The problem The pieces may contain higher than permissible levels of lead.

What to do Remove them from the reach of children. Return to your nearest Rejection Shop for a refund, or for more information call 1800 633 886.

TOY ■ Toys 'R' Us has recalled **My First Busy Driver**, sold by Toys 'R' Us between 24 February 2007 and 20 June 2008.

The problem The metallic foil on the face of the phone may detach, posing a choking hazard for young children.

What to do Remove it from the reach of children. Return it to your nearest Toys 'R' Us store for a refund.

TOY ■ Kmart has recalled **World 4 Kids Magnetic Numbers and World 4 Kids Magnetic Letters**, product number 007566014053, sold in Kmart stores since 2004.

The problem The magnets may detach and pose a choking risk to young children.

What to do Remove them from the reach of young children. Return them to your nearest Kmart store for a refund, or for more information call 1800 124 125.

COSMETIC ■ Copper Care has recalled **MD Lash Factor Eyelash Conditioner**, 6g, silver tube.

The problem It contains a derivative of prostaglandin cloprostenol, which is a prescription only ingredient and should only be used under medical supervision.

What to do Stop using it. Call 1300 799 709 to arrange to return the product and obtain a refund.

HOT & COLD GEL PACK ■ United Pacific Industries has recalled **Thermoskin Hot/Cold Gel Pack (blue)**, small, medium and large, with product codes 86901, 86902 and 86903, ARTG number 109477.

The problem It contains ethylene glycol, a toxic substance.

What to do Don't use it. Call 1800 188 019 to arrange to return the product and obtain a refund.

BATHROOM FAN/HEATER/LIGHT ■ Chief Kitchenware has recalled **Mistral, Vogue Design, Plugz and Ringrip Bathroom Heater Exhaust Fan and Light Combinations**, and is an extension of a recall first announced in November 2007, and published in CHOICE in March 2008. The affected products are: Mistral brand model numbers M6600-0, M6601-0, M6700-0, M6700DUCT, M6705-0, M6740-0, M6715 Autoheat; Plugz model numbers P3N1-2, P6601-0; Vogue Design model numbers V02N1/2, V03N1/2DUCT, and Ringrip model numbers 6600-0, 6700-0 and 6601-0. Only models with two radiant heat globes are affected. They were sold nationally between 2000 and 2007 at electrical goods retailers, electrical wholesalers and DIY stores.

The problem The lampholders may overheat and cause a fire.

What to do If you have one of these products, don't use the heat lamp. Unscrew and remove the heat lamps and store safely. Check the product label inside the unit behind the heat lamps and identify the model number. Write down the brand name and model number and call 1800 677 845, 9am-8pm, Monday to Friday, and Saturday, 9am-5pm, AEST.

LAWN EDGER ■ Star Products has recalled **Star 2.5 hp Lawn Edger**, with a pull start handle, sold through Bunnings Warehouse in WA from 21 July 2008 to 21 August 2008.

The problem The pull start has been attached to the edger in a forward pulling position, which may increase the risk of injury due to the operator needing to be near the blade when starting.

What to do Stop using it. Call 08 9249 2666 to arrange for the edger to be repaired.

PROTECTION HARNESS MSA ■ has recalled the following **Gravity Crossover Style Fall Protection Harnesses**, manufactured between 16 June 2008 and 11 August 2008: product number 10034810, batch number 121373.1; product number 10034811, batch number 120929.1; product number 10034812, batch number 120653.1.

The problem The webbing strength may weaken. **What to do** Return it to the supplier for a replacement, or for more information call 1300 728 672.

CLEANING BRUSHES ■ Micador Group has recalled **Roymac Stubby Brushes**, yellow- and green-handled brushes with codes MBST4, MSTF4, 529SF and 582SR, sold between 13 September 2007 and August 2008.

The problem The surface paint on the yellow- and green-handled brushes may contain higher than permissible levels of lead and chromium.

What to do Remove them from the reach of children and stop using it. Return it to the place of purchase and a replacement brush will be sent to you. For more information, call 1800 628 878 or 03 9590 0122, weekdays, 9am-5pm AEST.

MOTOR VEHICLE ■ Suzuki Australia has recalled **Suzuki Grand Vitara three-door**, 1.6 litre engine, built between June 2006 and July 2007, VIN range JSAJTA74V0200009 to JSAJTA74V00216172.

The problem The fuel delivery pipe may crack after prolonged exposure to engine vibration, which could lead to fuel leakage and a potential fire risk.

What to do Contact your nearest Suzuki dealer to arrange for repair, call 1800 251 109 or email safety@suuki.com.au for more information.

MOTOR VEHICLE ■ Jayco Corporation has recalled **Jayco Motor Homes and Caravans** with a 12 volt awning fitted at the factory between December 2006 and July 2008.

The problem A safety strap must be fitted to each of the awning arms to ensure that the awning is secured to the van, should the gear in the electric motor break.

What to do Contact your nearest Jayco dealer to arrange for the fitting of the safety strap.

MOTOR VEHICLE ■ Jayco Corporation has recalled **Jayco Motor Homes** with chassis numbers between 063390 and H90157.

The problem The motor homes have exhaust pipes that exit the side of the motor home, when they should come out of the rear of the motor home.

What to do Contact your nearest Jayco dealer to have the exhaust pipe replaced.

MOTOR VEHICLE ■ Jaguar Australia has recalled **Jaguar XF vehicles**, 2009 model year, VIN range R00019 to R22438.

The problem The seatbelt D-loops in the rear seat may not freely rotate, and may not run freely when the rear seatbelts are pulled out. Should the vehicle suffer a moderate to heavy impact, the rear-seat occupants may not be fully restrained.

What to do Contact your nearest Jaguar dealer to arrange for rectification.

+ JUNK FOOD ADVERTISING



ACMA protects advertisers not children

It's time for tougher restrictions on junk food advertising. CHOICE wants the government to put children's health before industry profits.

We know that junk food marketing influences children and there's strong support for tougher restrictions.

The draft Children's Television Standards (CTS) released by the Australian Communications and Media Authority (ACMA) in August won't protect children from junk food advertising but they will protect the bottom line of both the food and advertising industries.

Minor changes tighten restrictions around the use of celebrities and toys to push junk food to young viewers, but this is tinkering at the edges. The standards only apply to C-rated (children's) and P (preschool) programs. Yet ACMA knows, as do most parents, that fewer kids watch these shows compared with G or PG-rated shows, such as *Australian Idol*, *Home and Away* and *The Simpsons*. The bigger problem is the volume of junk food ads aired outside these C programs.

ACMA claims it couldn't estimate the impact of restricting ads for foods high in fat, sugar or salt because an appropriate tool doesn't exist in Australia to identify these foods. But it does exist. Our food regulator, FSANZ, has developed it and plans to use it to determine whether a food is healthy enough to carry a health

claim. It is based on the system developed by the UK Food Standards Agency for use by their broadcasting regulator for the purpose of restricting junk foods ads to kids. The food industry doesn't like it. Some of its biggest-selling products will be officially classified as junk foods.

The draft CTS was released the day after the Queensland and SA governments announced they were considering state-based restrictions on junk food advertising to children. Meanwhile, Greens leader Bob Brown has announced he will sponsor a bill to prohibit junk food ads during children's television viewing times.

We know that junk food marketing influences children and there's strong community support for tougher restrictions. We have the tools to regulate junk food ads and we also have political will – at some levels – to make it happen. Regulation of junk food marketing is long overdue and CHOICE believes it's time the federal government put children's health before industry profits. Read CHOICE's submissions to ACMA and the SA and Queensland governments at www.choice.com.au/foodmarketing. ■

+ GREENWASH

Benchmark needed for 'greenwash' complaints

The advertising industry is pushing for self-regulation to tackle greenwash. The industry wants the Advertising Standards Bureau, the body that dealt with complaints about the "longer lasting sex" billboards, to police environmental claims in advertising.

CHOICE continues to investigate and campaign against dodgy green marketing claims. Companies who mislead consumers should be held accountable because greenwash undermines producers and consumers who are really trying to improve their environmental performance. CHOICE believes self-regulation will result in patchy, confused and toothless action, while weakening the power of the independent regulators to act.

In the now infamous "longer lasting sex" case, the complaint appeared straightforward enough to investigate and rule on, yet both the process and outcome have been confusing. When the ASB dismisses a complaint, its rules prevent further complaints

about that ad being reinvestigated, but in this case, they reopened the file after 18 months of sustained complaints. The ASB ruled that the 120 billboards around Australia must be discontinued or modified. The ASB announced the advertiser would replace the billboards but instead the advertiser plastered "censored" stickers on them. We suspect the advertiser has profited well from the extra attention.

We're now being asked by the Australian Association of National Advertisers to trust the ASB to police environmental claims in ads. Is the answer to the problem of regulating hard-to-spot greenwash a self-regulatory code policed by the ASB? CHOICE doesn't think so. Instead, the ACCC should police environmental claims, and do so against rigorous, internationally recognised environmental standards. Consumers increasingly want to choose green products and services. But if greater leeway is given to marketers, it will become even harder to distinguish green spin from reality. ■



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Bold type indicates a test, survey or trial report, unbold type indicates other articles.

* Indicates an update of a previous report, additions or corrections to reports, small follow-up items, letters or recalls.

Additives, food	May	Digital music	Feb	Hifi systems, micro	Feb	Property e-valuations	Mar
Alcopops	Mar	players	Dec/Jan, Oct	Home and contents		PVRs with two tuners	Apr
Air conditioners		Dishwashers	Feb, Apr*, Jul	insurance	Apr, Jun*		
evaporative coolers	Nov	Drinks pyramid	Jun	Home loans, alternative	Feb	Rangehoods, canopy	Oct
large split-system	Oct	Dryers, clothes	Apr	Home theatre systems	Feb	Recycled water	Mar
portable	Sep	DVD players, in-car	Mar	Hospital insurance	Jun	Refinancing, mortgage	Nov
small, reverse-cycle	Jul			Hot chocolate	Aug	Refrigerators - see Fridges	
Antipirpirant	Sep	Eggs	Jul	Hot-water, solar	Aug	Restaurants, web guides	Oct
AV receivers	Sep	Electricity, green	May	Identity fraud	Oct	Retirement, transition to	Apr
		Emissions trading		Insurance		Reverse mortgages	Jun
Baby carriers	Aug	scheme	Oct	car	Feb*	Rice cookers	Apr
Bank account, switching	Mar	Espresso machines	Mar	health, ancillary	Sep	Running shoes	May
Barbecues, gas	Dec/Jan	Ethical		home & contents	Apr, Jun*	Sandwich presses	Sep
Bartholomew cleaners	Feb	purchasing survey	Jul	hospital	Aug	Saucepans, 20 cm	Aug
Bikes, folding	Feb	toy manufacture	Nov	switching	Aug	Set-top boxes with PVR	Mar
for transport	Jul	Evaporative air coolers	Nov	Internet filters	May	Sewing machines	Apr
Blu-ray players	Sep			Investment with warranty	Aug	Shavers, men's	Aug
Bodyboards	Dec/Jan	Farmers' markets	Apr	Iron	Jul	Shirts, kitchen	Sep
Body numbers	Mar	Feta	Aug	Kitchen shears	Sep	Shoes, running	May
Broadband, home	Jun	First aid kits	Mar	Knives, cook's 20 cm	Mar	Shonkys, The	Dec/Jan, Oct
		Fish, dilemma	Nov	Labelling, green	Jun	Shopping rights	Dec/Jan
Camcorders	Dec/Jan, Aug	Fish oil capsules	Aug	Ladders, small	May	Skin cancer clinics	Feb
Cameras, digital	Aug	Folding bikes	Feb	Laptop computers	Nov	Slow cookers	May
digital SLR	Nov	Food		Laundry detergent, liquid	Nov	Smart phones	Dec/Jan
Carbon offset schemes	Nov	additives	May	Lawnmowers	Nov	Solar hot-water systems	Aug
Carpet spot cleaners	Mar	chicken	Dec/Jan	Luggage, carry-on	Apr	Solar (PV) panels, installing	Sep
Cats	Feb, Jun*, Nov	chips, etc	Nov	Micro hifi systems	Feb	Sparkling wine	Dec/Jan
in-car DVD players	Mar	chocolate, dark	Apr	Microwave	Jul	Speaker docks	Jun
insurance	Feb*	cholesterol-lowering	Jun	combination	Jul	Sports drinks	Oct
rental traps	Aug	drinks pyramid	Apr	pizza oven	Jul	Stairlifts, small	May
roof boxes	Oct	eggs	Jul	Mobile phones	Mar	Steroids in foods	Apr
safety, ANCAP results	Jun	feta	Aug	Moisturisers	May	Strawberries	Feb, Jun*
servicing	May	fish	Nov	men's	Oct	Strollers, 3- and 4-wheel	May
tyres	Aug	ham, packaged	Oct	with tanning lotion	Oct	Suitcases, small	Apr
Cause-related marketing	Oct	healthy diet	Jul	Mortgages	Feb	'Super' grains	Sep
Champagne	Dec/Jan	hot chocolate	Jun	alternative	Feb	Supermarket	Jul
Charities	Apr	muesli	Aug	mortgage stress	Nov	consumer survey	May
Chicken	Mar	plasticisers in food	Oct	refinancing	Nov	Switching bank account/	Mar
Child/baby concerns		sports drinks	Aug	reverse	Nov	credit card/insurance	Mar
carriers	Aug	strawberries	Feb	MF3 players	Dec/Jan, Oct		
cots, portable	Apr	wholegrains	Sep	Muesli	Oct	Telephones - see Phones	
playpens	Oct	Fridge thermometers	Feb	Net filters	May	Televisions	Dec/Jan
strollers, 3- & 4-wheel	May	Fridges		Ovens		80 cm	Dec/Jan
Chips, etc	Dec/Jan	mixed sizes	May, Nov	combination microwave	Jul	101-107 cm	Apr
Chocolate, dark	Nov	May, Nov		electric multifunction	Oct	127-132 cm	Sep
Cholesterol-lowering		Gas heaters, unflued	May, Jun*	microwave pizza	Jun	PVRs with two tuners	Apr
foods	Apr	Glucosamine	May	Packaging reduction	Apr	Thermometers, fridge	Feb
Cleaners, bathroom	Jun	GPS		Perfume	Dec/Jan, Feb*	Toasters, two-slice	Aug
Clothes dryers	Nov	in-car	Feb, Jun*, Nov	Pharmaceutical company	Sep	Toilet paper	Nov
Computers, laptops	Nov	handheld	Dec/Jan	influence on GPS		Toys	
Cooktops, electric	Apr	Green labelling	May	Phones	Aug	artificial manufacture	Jul
Consumer survey	Jul	GreenPower	May	cordless	Aug	safety	Dec/Jan
Cordless phones	Feb	Greywater, using	Feb, Jun*	dual-mode, with VoIP	Feb	Travel, healthy	Feb
dual-mode, with VoIP	Feb	Hair straighteners	Feb	mobile	Mar	Tyres	Aug
with answering machine		Ham, packaged	Oct	smart	Dec/Jan	Universal remote controls	Jul
Cots, portable	Aug	Hand luggage	Apr	Pills, for memory	Aug	Vacuum cleaners	Jun, Sep
Credit cards, interest rates	Jul	Health		Plasticisers in food	Aug	VoIP	Feb
switching	Mar	body numbers	Mar	Playpens	Oct	Washing machines	Mar, May*, Sep
Cycling for transport	Jul	first aid kits	May	Portable air conditioners	Sep	Water, recycled	Mar
Deodorant	Sep	glucosamine	May	Portable cots	May	Wholegrains	Sep
Dessert wine	Sep	healthy diet	Jul	Power, green	May	Wine fridges	Dec/Jan
Detergent, liquid laundry	Jun	'memory' pills	Aug	Printers, all-in-one	May		
Diamonds, buying	Jan	travel, health	Feb				
Digital camcorders	Dec/Jan	Health grills	Nov				
Digital cameras		Heaters					
compact	Jun	electric, flame-effect	Jun				
SLR	Nov	gas, unflued	May, Jun*				

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The winner of this month's best entry goes to B Hedger, who's still marvelling at the genius behind round egg rings. Thanks also for contributions from D Cronin, J Yang, B Carey, J Connell & J Ellis, T Boland and the unnamed person who sent the ginger biscuits.

If you have any examples you think deserve to be on this page, send them to *The Hard Word, CHOICE*, 57 Carrington Road, Marrickville 2204. Please don't email us your entries – we need the originals.



With mouth-watering methional 2,4-decadienal!
They may be honest, but they're selling themselves a little short – instead of confessing “artificial chicken flavour”, why not hail its “Genuine Methional 2,4-decadienal, Furfural etc” flavour? (And don't you love the “etc”?)



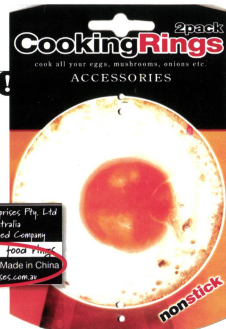
If it has a pouch, it must be a marsupial...
... even if it is a CD case!

Futile food miles?

We're told it's good to eat local produce to cut down on transport carbon emissions. When a fish is caught in Australia, shipped thousands of kilometres to another country to be packaged then shipped back to Australia, it makes a mockery of the concept of eating local.



“And the winner of the design award for round egg rings goes to ...”
These cooking rings were “designed in Australia” but made in China. Maybe we've underestimated the design challenges inherent in creating egg rings, but really, is it much to crow about?



Product of Smash Enterprises Pty Ltd
Melbourne, Australia
100% Australian owned Company
Hedger 02176 food rings
Designed in Australia. Made in China
www.smashenterprises.com.au

Ditto for these Australian stem-ginger biscuits. Aren't we capable of making biscuits here?



Save Dad Time



Save 5 precious minutes off Dad's morning routine when he showers & shaves at the same time with the shaving mirror. It has a digital clock, and an AM/FM radio.

But wait, there's more!

Judging by the towel around dad's neck, he not only saves time by showering and shaving, but also drying himself at the same time. Amazing!

Food for thought

Having disposed of it thoughtfully, John Connell happily reports this wine didn't taste at all like cardboard.

BROWN BROTHERS MILAWA VINEYARD PTY LTD
239 MILAWA - BOBINAWARRAH ROAD,
MILAWA, VICTORIA, AUSTRALIA 3678.
PHONE: +61 3 5720 3500
Email: bhv@brownbrothers.com.au
Website: www.brownbrothers.com.au
6x 750ml BOTTLES Case Weight: 8.0kg
WINE OF AUSTRALIA
MADE FROM RECYCLED CARDBOARD
PLEASE DISPOSE OF THOUGHTFULLY